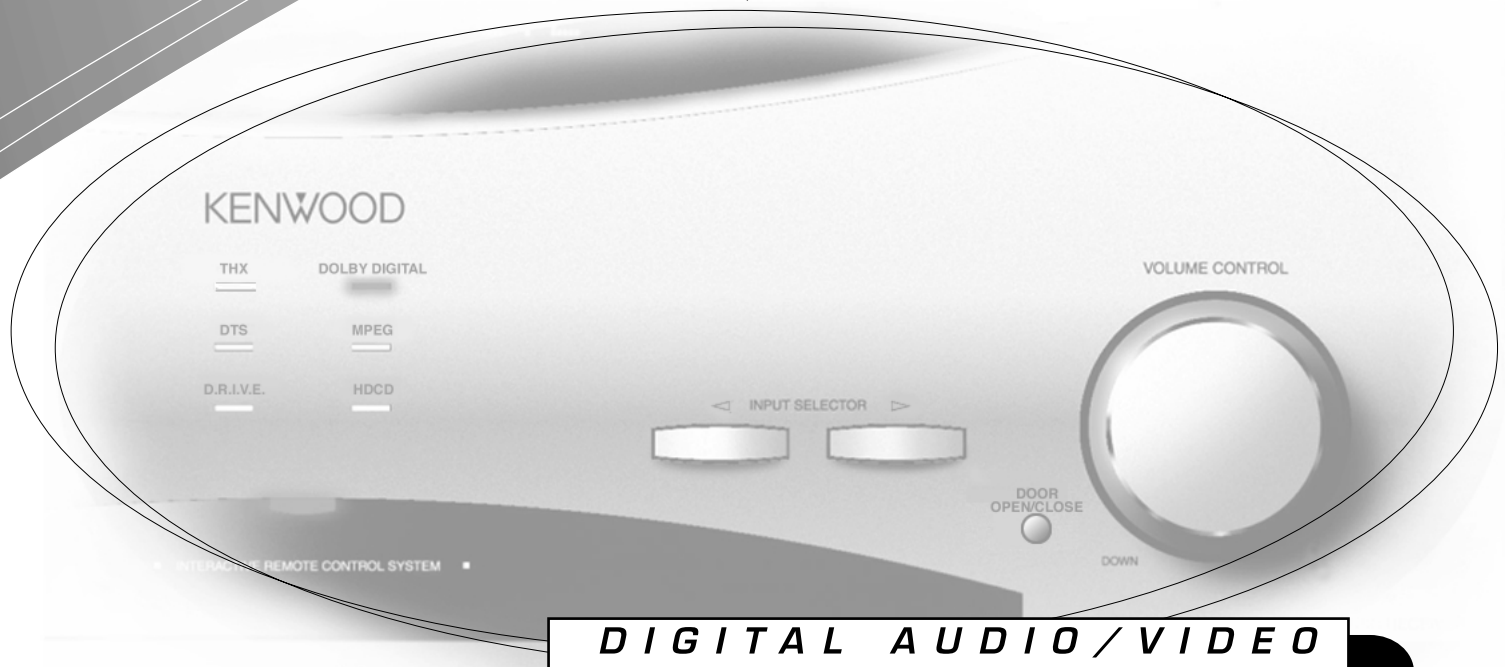
how to

connect and set up your

KRF-X9995D



DIGITAL AUDIO/VIDEO

Receiver

KENWOOD

Connection and Setup Guide

B60-4885-10 02 (CH) (M, T, X) (OC) 0011

Before Applying Power

Read this section carefully to ensure safe operation.

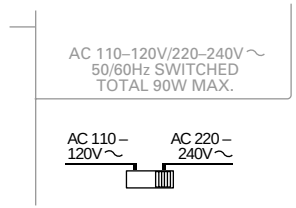
KRF-X9995D is designed for operation as follows.

U.K. and Europe ..... AC 230 V only
Australia ..... AC 240 V only
***Other countries**
..... AC 110-120/220-240 V switchable

***For other countries**
AC voltage selection

The AC voltage selector switch on the rear panel is set to the voltage that prevails in the area to which the unit is shipped. Before connecting the power cord to your AC outlet, make sure that the setting position of this switch matches your line voltage. If not, it must be set to your voltage in accordance with the following direction.

AC voltage selector switch



Move switch lever to match your line voltage with a small screwdriver or other pointed tool.

Note:
Our warranty does not cover damage caused by excessive line voltage due to improper setting of the AC voltage selector switch.

For United Kingdom

Factory fitted moulded mains plug

1. The mains plug contains a fuse. For replacement, use only a 13-Amp ASTA-approved (BS1362) fuse.
2. The fuse cover must be refitted when replacing the fuse in the moulded plug.
3. Do not cut off the mains plug from this equipment. If the plug fitted is not suitable for the power points in your home or the cable is too short to reach a power point, then obtain an appropriate safety approved extension lead or adapter, or consult your dealer.

   If nonetheless the mains plug is cut off, remove the fuse and dispose of the plug immediately, to avoid a possible shock hazard by inadvertent connection to the mains supply.

IMPORTANT : The wires in the mains lead are coloured in accordance with the following code:

Blue : Neutral
Brown : Live

Do not connect those leads to the earth terminal of a three-pin plug.

Safety Precautions

Read this section carefully to ensure safe operation.

WARNING :

TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

	CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.
	THE LIGHTNING FLASH WITH ARROWHEAD SYMBOL, WITHIN AN EQUILATERAL TRIANGLE, IS INTENDED TO ALERT THE USER TO THE PRESENCE OF UNINSULATED "DANGEROUS VOLTAGE" WITHIN THE PRODUCT'S ENCLOSURE THAT MAY BE OF SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK OF ELECTRIC SHOCK TO PERSONS.
	THE EXCLAMATION POINT WITHIN AN EQUILATERAL TRIANGLE IS INTENDED TO ALERT THE USER TO THE PRESENCE OF IMPORTANT OPERATING AND MAINTENANCE (SERVICING) INSTRUCTIONS IN THE LITERATURE ACCOMPANYING THE APPLIANCE.

Connecting and Setting Up Your New Kenwood Audio-Video Receiver

Welcome to the Connection and Setup Guide for your new Kenwood audio-video receiver.

The KRF-X9995D offers 3 kinds of 5.1-channel digital decoding:

- Dolby Digital, for the hundreds of currently available Dolby Digital DVDs and LaserDiscs.
- DTS, a well-established multichannel format in movie theaters, is available for home theater on LaserDisc and DVD.
- MPEG Multichannel, a well-established multichannel format in movie theaters, is available for home theater on LaserDisc and DVD.

The KRF-X9995D also offers 2 kinds of 6.1-channel digital decoding:

- THX Surround EX technology reproduces a surround back channel from software which has been specially encoded with Surround EX.
- DTS-ES also creates a 6.1-channel surround environment by adding the surround back signals. The KRF-X9995D can handle both DTS-ES Discrete 6.1 featuring recording of all channels in the digital discrete format and DTS-ES Matrix 6.1 featuring matrix encoding.

In addition, the KRF-X9995D offers the following surround features.

- DTS-NEO:6: This converts 2-channel signals into 6.1-channel signals by means of a high-accuracy digital matrix decoder.
- Dolby Pro Logic II: This is advanced version of Dolby Pro Logic and features improved audio quality.
- THX Ultra: This corrects signals in order to reproduce a similar acoustic field to movie theaters in home use.

Use it to connect all your current audio and video components—the KRF-X9995D has a variety of connection jacks so you can customize your entertainment setup.

It also includes Kenwood's remarkable PowerTouch LCD remote—a graphical user interface without having to use your TV!

Other advanced features include 6 S-Video inputs and an optical and coaxial digital outputs for digital dubbing to MiniDisc or CD-R. For a match made in "dual-room heaven," get the DPF-J9030, DPF-J9020 or DPF-J9010 changer.

D.R.I.V.E. circuit: This is a Kenwood original technology for reproducing signals with high resolution by instant switching of the internal filters according to the input signal. The KRF-X9995D incorporate a high performance DSP to provide very high resolution from a 32-bit DRIVE III circuit, achieving stereo audio reproduction with the best quality ever reached.

HDCD®: This is a new format of high-resolution recording. The KRF-X9995D is capable of reproducing CDs recorded in the HDCD format with high resolution and wide dynamic range.

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HDCD®, HDCD®, High Definition Compatible Digital® and Pacific Microsonics™ are either registered trademarks or trademarks of Pacific Microsonics, Inc. in the United States and/or other countries. HDCD system manufactured under license from Pacific Microsonics, Inc. This product is covered by one or more of the following: IN the USA: 5,479,168, 5,638,074, 5,640,161, 5,808,574, 5,838,274, 5,854,600, 5,864,311, 5,872,531, and in Australia: 669114. Other patents pending.

The above are additional trademarked names appearing in this manual. All other products named are trademarks of their respective companies.

CHANNEL SPACE / DE-EMPHASIS Switch

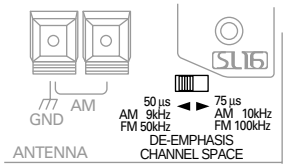
Not present for U.K. and Australia

The **CHANNEL SPACE/ DE-EMPHASIS** switch on the rear panel is set to the correct setting that prevails in the area to which the unit is shipped. However, if the **CHANNEL SPACE/ DE-EMPHASIS** setting is not matched to the area where the unit is to be used; for instance, if you move from area 1 to area 2 as shown in the table to the right or vice versa, desired reception of AM/ FM broadcasts is not expected. In this case, change the **CHANNEL SPACE/ DE-EMPHASIS** setting in accordance with the area corresponding to the table. The **CHANNEL SPACE/ DE-EMPHASIS** is switched over at the same time.

- When changing the setting of the **CHANNEL SPACE/ DE-EMPHASIS** switch, first unplug the power cord, and then reset the switch, plug the power cord back in, and turn the power switch on.

	Area	CHANNEL SPACE freq.	DE-EMPHASIS
1	USA, Canada, and South American Countries	FM : 100 kHz AM : 10 kHz	75 µs
2	Other Countries	FM : 50 kHz AM : 9 kHz	50 µs

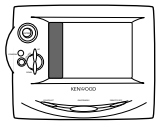
CHANNEL SPACE
DE-EMPHASIS switch



Unpacking

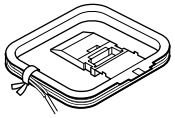
Unpack your new receiver carefully and make sure that all the accessories are present:

Remote control unit (PowerTouch)



Batteries
AA (R6) × 6

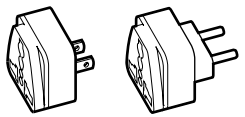
AM Loop Antenna



FM Antenna

If any accessories are missing, or if the receiver is damaged or fails to operate, notify your dealer immediately. If your receiver was shipped to you directly, notify your shipper immediately. Kenwood recommends that you retain the original carton and packing materials in case you need to move or ship the receiver in the future.

AC plug adapter



Use to adapt the plug on the power cord to the shape of the wall outlet.

(Present only for regions where use is necessary.)

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KRF-X9995D (for U.K.)
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Chapter One: Connecting Your Devices

Welcome to the Kenwood KRF-X9995D Connection and Setup Guide. This chapter guides you through connecting your home entertainment devices to your new Kenwood audio-video receiver.

Once all your devices are connected, you can set up the PowerTouch (see Chapter Two).

Refer to the following pages for details on connecting these devices:

Speakers	page 4
TV	page 10
VCR(s)	page 14
CD Player, Kenwood 200-Disc Changer	page 16
DVD Player	page 18
CD-R Recorder	page 20
MD Recorder	page 22
Tape Deck(s)	page 22
Laser Disc Player	page 26
Turntable	page 30
Camcorder/Second VCR	page 31
Antennas	page 33

All necessary cables should be provided with your home entertainment device (not with your new receiver). If you do not have the correct cables, you may purchase these cables from any home entertainment store.

To make coaxial digital connections, be sure to use a high-quality digital audio cable, not a standard audio cable.

Do not plug in the receiver or any other device to AC power until all connections have been made. Once all devices have been connected, you may plug them in and provide power.

Important:

Be sure to adhere followings, or proper ventilation will be blocked causing damage or fire hazard.

Do not place any objects impairing heat radiation onto the top of unit.

Leave a space around the unit (from the largest outside dimension including projection) equal or greater than, shown below.

Top panel : 50 cm Side panel : 10 cm Back panel : 10 cm

Do not install your receiver where direct sunlight or high frequency fluorescent lighting can shine directly into the remote sensor. This can cause your new receiver to malfunction.

Before You Begin

This manual covers the most common and standard connections to the receiver. Because of its versatility, you may decide to connect your devices differently.

Video Connections

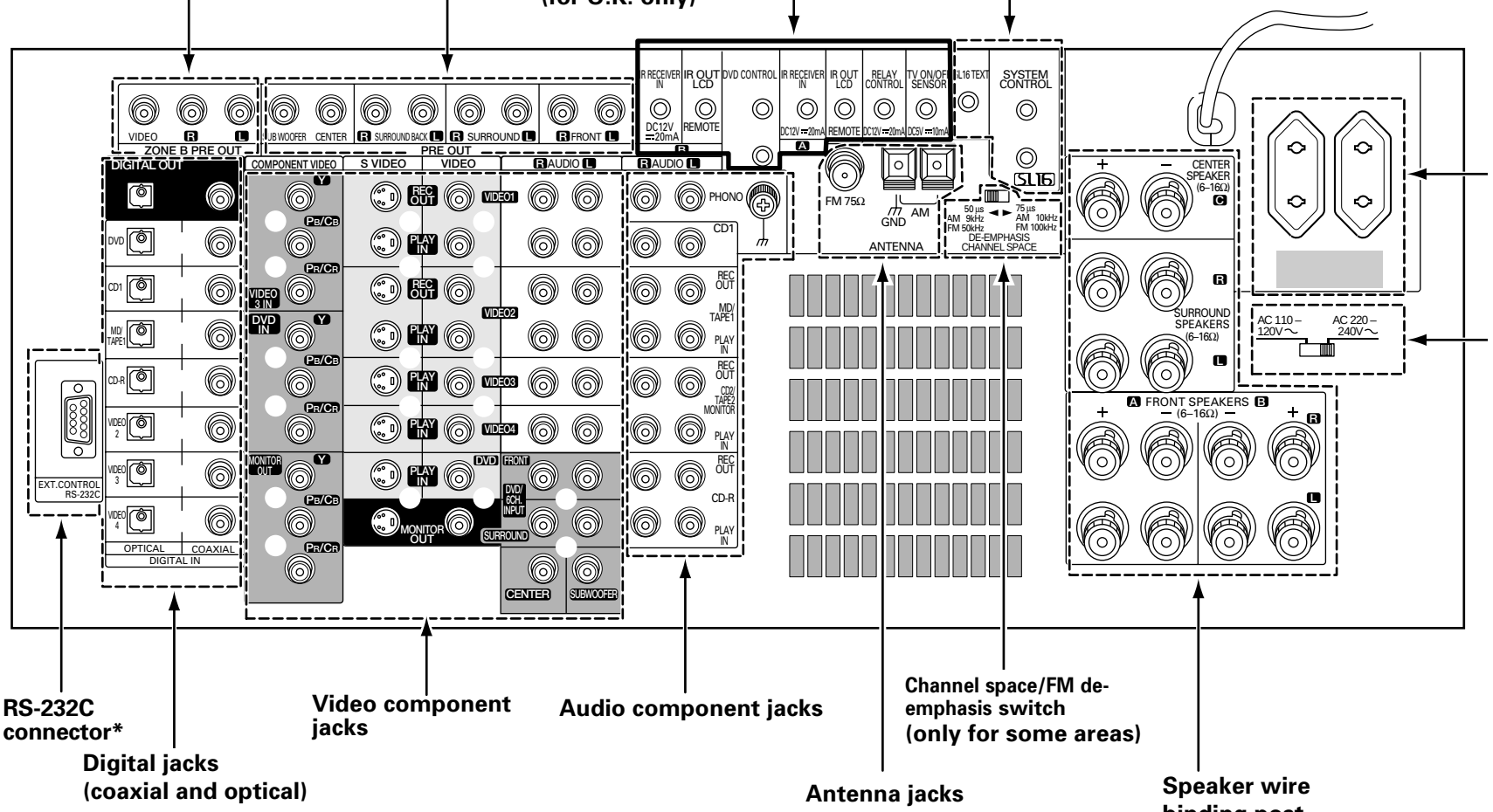
This receiver incorporates Kenwood's exclusive Universal Video HD, which converts between composite, S-Video and component video formats. This simplifies operation, and maintains the highest possible video quality while requiring only a single connection between the receiver and your TV. Video format conversion is performed according to the following chart:

Video input signal type	Appears at these video outputs
① **Composite Video**	**Composite** **S-Video** **Component Video**
② **S-Video**	**Composite** **S-Video** **Component Video**
③ **Component Video**	**Component Video**

If several video connections are made, one of them will be selected based on the priority ③, ②, and ①.

- Component video connections provide the best video quality; S-Video connections provide video quality that is superior to standard composite video connections. We recommend using the highest quality connection possible between the receiver and your TV.
- Since component video inputs are not downconverted to S-Video or composite video, if you want to record components connected via component video inputs you must also connect that component's S-Video or composite video outputs to the receiver.
- If you plan on using the KRF-X9995D in a Dual-Zone application (see Chapter Four), you must use the composite video connections in addition to any component video and S-Video connections for all source components. Only video sources connected to the receiver with composite video connections can be viewed in the second zone.

The following diagram shows the entire back of the KRF-X9995D.


Zone B pre out jacks
Pre out jacks
Supplemental infrared receiver and sensor jacks, DVD control jacks**, RELAY CONTROL jack and TV ON/OFF SENSOR jack (for U.K. only)
System control jacks
Note that some component jacks are linked to specific digital jacks. For example, if you connect a video component with a digital optical cable, you should connect the analog cables to the VIDEO2 video component jacks and the digital cable to the VIDEO2 digital optical jack.
AC Plugs
The shape of plugs are different between countries
AC voltage selector switch (only for some areas)
RS-232C connector*
Digital jacks (coaxial and optical)
Video component jacks
Audio component jacks
Channel space/FM de-emphasis switch (only for some areas)
Antenna jacks
Speaker wire binding post
ZONE B PRE OUT
PRE OUT
DIGITAL OUT
DIGITAL IN
OPTICAL
COAXIAL
COMPONENT VIDEO
S VIDEO
VIDEO
AUDIO
SYSTEM CONTROL
REMOTE
RELAY CONTROL
TV ON/OFF SENSOR
FM 75Ω
AM
GND
ANTENNA
CENTER SPEAKER (6–16Ω)
SURROUND SPEAKERS (6–16Ω)
FRONT SPEAKERS (6–16Ω)
AC 110–120V
AC 220–240V
EXT.CONTROL RS-232C

* The RS-232C connector is provided for future capability (to connect a commercially marketed controller having the capability of controlling the KRF-X9995D).

** The DVD CONTROL jacks are reserved for future extension of the system.

Noting Your Devices

Jack Set	Device	Manufacturer	Model #	Setup Code
PHONO				_____
CD1				
MD/TAPE1				
CD2/TAPE2 MONITOR				
CD-R				
MONITOR OUT (TV on PowerTouch)				
VIDEO1				
VIDEO2				
VIDEO3				
VIDEO4				
DVD				

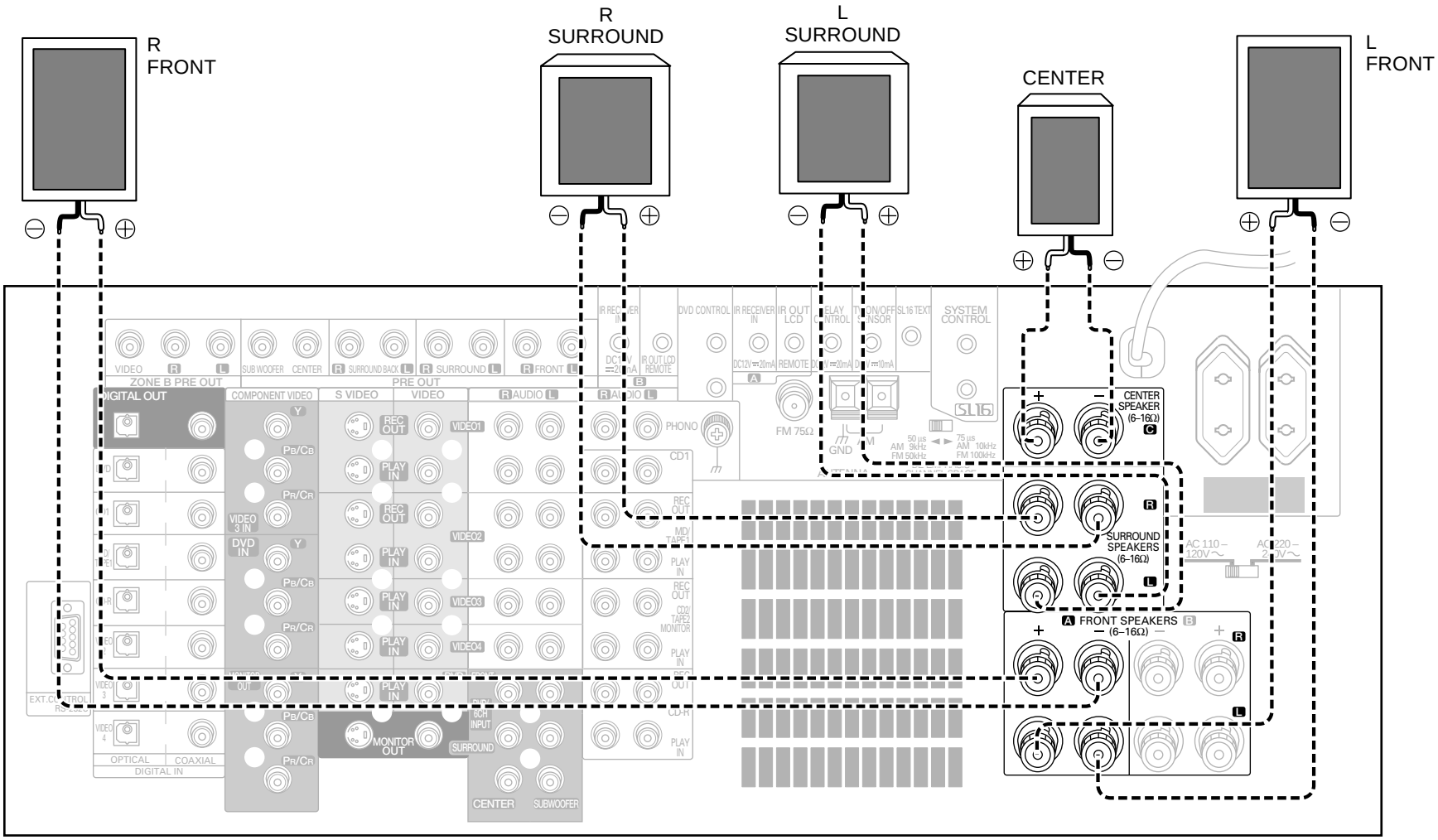
Use this table and the diagram on the preceding page to plan your connections before you make them, or use it to record your connections as you make them.

You will need this information later, when you set up your PowerTouch (see "Identifying Devices For PowerTouch Control" on page 40). Recording this information now will save you additional trips behind your home entertainment cabinet. You will fill in the Setup Code column when you are setting up PowerTouch.

When playing Dolby Digital* or DTS-encoded software in multichannel configuration, the connected audio signal should be the digital signal.

* When playing a LaserDisc recorded in the Dolby Digital format, connect the AC-3 RF output to the receiver (See page 26).

Connecting Your Speakers



Connecting Your Speakers, continued

Do not plug in the receiver to AC power until all connections have been made.

To Connect Front Speakers Only:

If you only intend to listen to stereo sound (as opposed to surround sound), you may simply connect a single pair of speakers. To do so:

Using Banana Plugs (except for U.K.):

1. Tighten the speaker wire binding posts. If you do not tighten the posts, they will not conduct sound properly to the speakers.
2. Insert the plug from the positive jack on the **RIGHT FRONT** speaker into the pin jack on the positive **RIGHT FRONT** post. Repeat for the negative plug.
3. Repeat step 2 for the positive and negative wires on the **LEFT FRONT** speaker.

Using Bare Wires:

1. Loosen the speaker wire binding posts.
2. Insert the wire from the positive jack on the **RIGHT FRONT** speaker into the U-shaped slot in the base of the positive **RIGHT FRONT** post. Lay the wire to the right of the post; that way, when you tighten the binding post, it will naturally twist the wire into the best connection. Tighten the post. Repeat for the negative wire on the **RIGHT FRONT** speaker as shown to the right.
3. Repeat step 2 for the positive and negative wires on the **LEFT FRONT** speaker.

To Connect Front and Surround Sound Speakers:

To listen to the full surround sound that this receiver can put out, connect front speakers, center, left surround, and right surround speakers. To do so:

To reproduce more enriched bass, connect a subwoofer incorporating a power amplifier.

For the connections of the subwoofer and surround back speakers, see page 6 to 7.

Using Banana Plugs (except for U.K.):

1. Tighten the speaker wire binding posts. If you do not tighten the posts, they will not conduct sound properly to the speakers.
2. Follow the steps under "To Connect Front Speakers Only" on this page to connect the **RIGHT** and **LEFT FRONT** speakers.
3. Insert the plug from the positive jack on the **CENTER** speaker into the pin jack on the positive **CENTER** post. Repeat for the negative plug.
4. Insert the plug from the positive jack on the **RIGHT SURROUND** speaker into the pin jack on the positive **RIGHT SURROUND** post. Repeat for the negative plug.
5. Repeat step 4 for the positive and negative wires on the **LEFT SURROUND** speaker.

Using Bare Wires:

1. Loosen the speaker wire binding posts.
2. Follow the steps under "To Connect Front Speakers Only" on this page to connect the **RIGHT** and **LEFT FRONT** speakers.
3. Insert the wire from the positive jack on the **CENTER** speaker into the U-shaped slot in the base of the positive **CENTER** post as shown to the right.

   Tighten the post. Repeat for the negative wire.
4. Insert the wire from the positive jack on the **RIGHT SURROUND** speaker into the U-shaped slot on the base of the positive **RIGHT SURROUND** post. Tighten the post. Repeat for the negative wire.
5. Repeat step 4 for the positive and negative wires on the **LEFT SURROUND** speaker.

Never short circuit the + and - speaker wires.

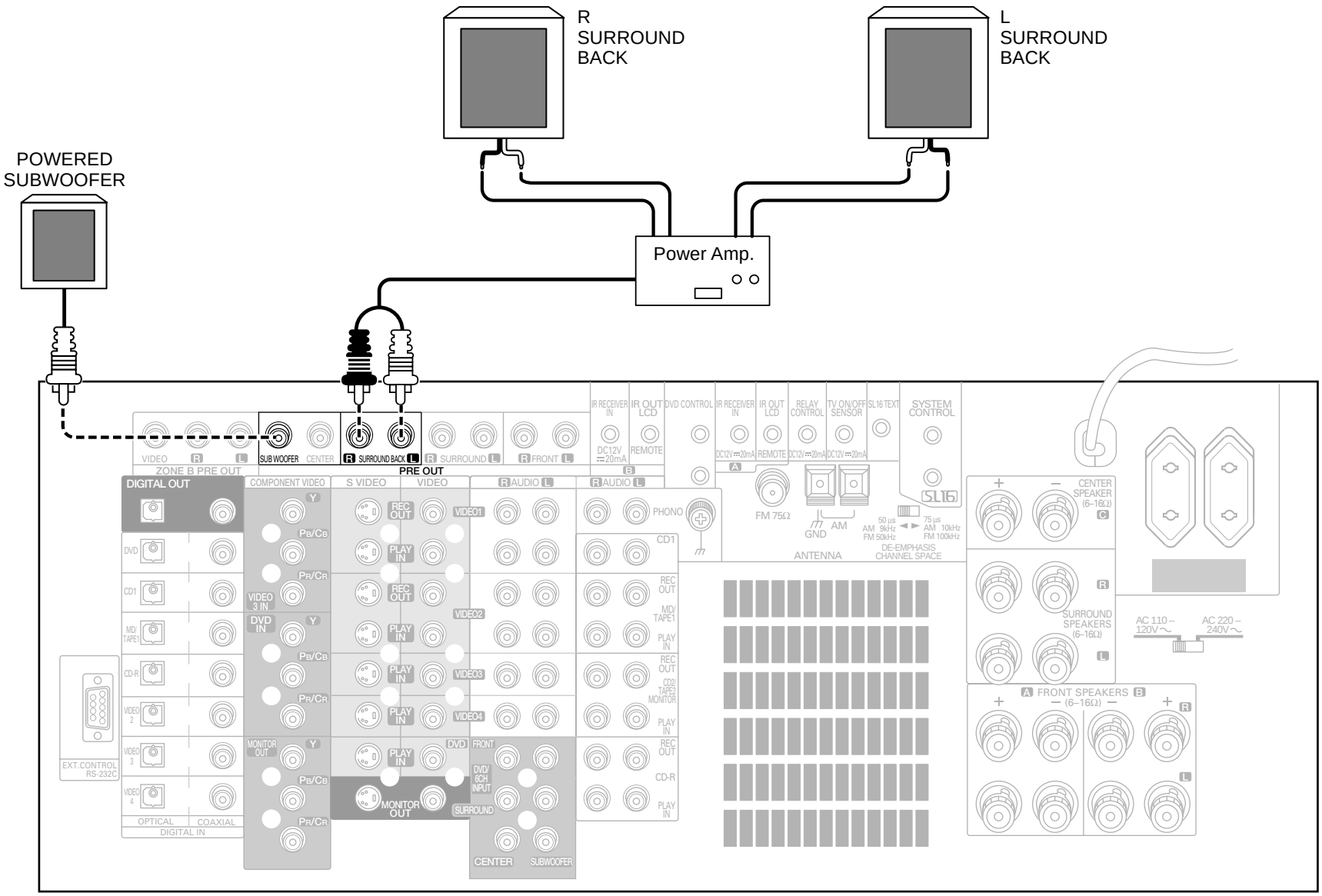
Do not switch the left and right speaker wires or swap the + and - wires on the binding posts.

The speakers must have a nominal impedance of between 6Ω and 16Ω.

Using Bare Wires

1. Loosen post
2. Insert wire
3. Tighten post

Connecting Your Speakers, continued



Connecting Your Speakers, continued

Do not plug in the amplifiers or the receiver to AC power until all connections have been made.

What if I Have a Powered Subwoofer?

Simply connect the subwoofer's audio cable to the receiver's **SUBWOOFER PRE OUT** jack as shown to the left.

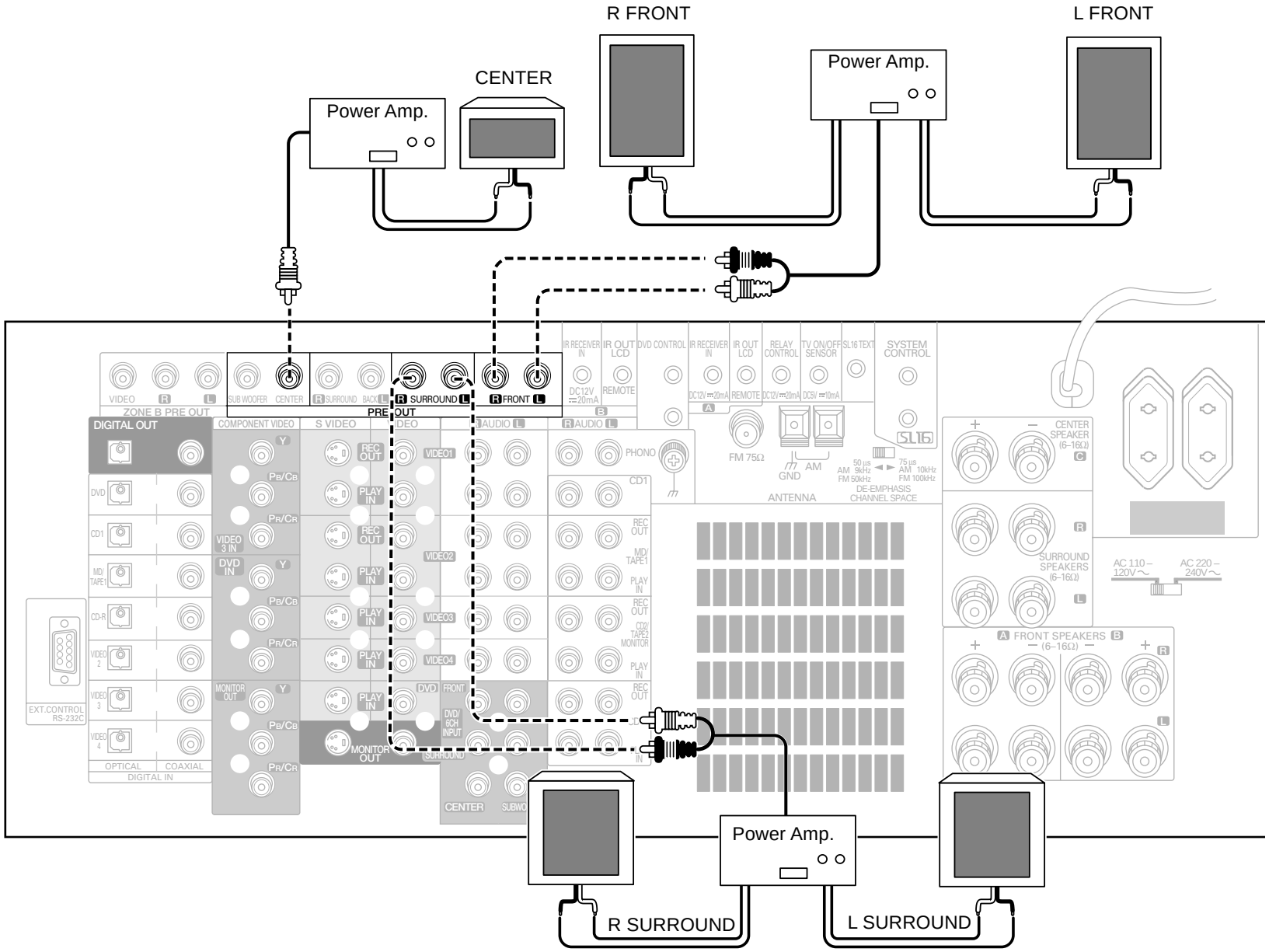
To Connect Surround Back Speakers:

To reproduce the surround back channels by Dolby Digital Surround EX, DTS-ES or DTS-NEO:6, add a commercially marketed 2-channel power amplifier and connect the surround back speakers to it.

To connect supplemental power amplifiers and surround back speakers:

1. Using RCA audio cables (not supplied), connect the receiver's **SURROUND BACK PRE OUT** jacks to the amplifiers' input jacks as shown to the left.
2. Connect the speakers to the power amplifiers according to the amplifiers' instruction manuals.

What if I Have an Amplifier?



What if I Have an Amplifier?, continued

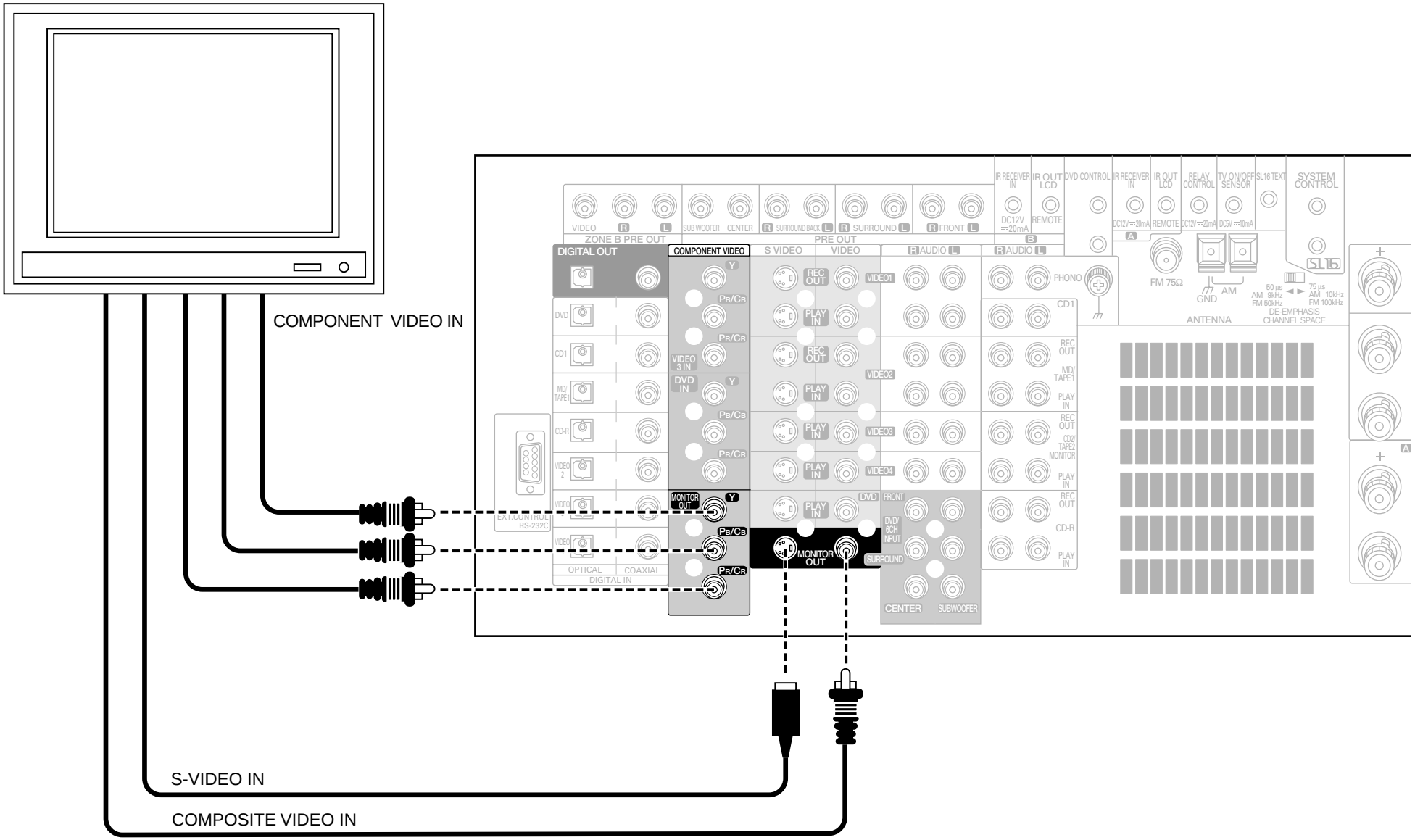
You can use supplemental power amplifiers for any of the channels instead of the receiver's built-in amplifiers.

Do not plug in the amplifiers or the receiver to AC power until all connections have been made.

To connect supplemental power amplifiers:

1. Using RCA audio cables (not supplied), connect the receiver's **PRE OUT** jacks to the amplifiers' input jacks as shown to the left.
2. Connect the speakers to the power amplifiers according to the amplifiers' instruction manuals.

Connecting Your TV



Connecting Your TV, continued

Do not plug in the receiver or devices to AC power until you have connected all your devices.

This section focuses on the connections from your TV to the KRF-X9995D. Please refer to your TV's instructions for more detail about its connection jacks and capabilities.

The instructions in this section show how to connect your TV as a monitor for the other video devices you connect (without using it as an audio/video source device itself). To use your TV as an audio/video source device, you must first connect it as described in this section, and also connect its audio/video output jacks as if they were cable TV tuner outputs, as described in "To Connect a Cable TV Tuner with a Composite (RCA) Video Output" on page 13.

To Connect a TV:

1. Review the information under "Before You Begin" on page 1. It contains important notes about the types of video connections you can make.
2. Connect a video cable from your TV's Video IN jack to the receiver's **MONITOR OUT** jack as shown to the left.
3. If your TV has the **COMPONENT VIDEO** jacks, you can also connect it as shown on the left.
4. If your TV does not have any video input connections, you must purchase an RF modulator. The modulator will convert the video signal from the receiver to an RF signal that will work with the TV's antenna connections.

   Connect the receiver to the TV according to the RF modulator's instruction manual.
5. Go to "Noting Your Devices" on page 3 and note which jack you used to connect your TV. In addition, note the brand name and model number of the TV.

If you previously connected your TV directly to your VCR, you must now connect it through your new receiver.

With some devices, the **COMPONENT VIDEO** jacks (Y, PB/CB, PR/CR jacks) are indicated as the R-Y, B-Y jacks. For details, refer to the operation instructions for the respective device.

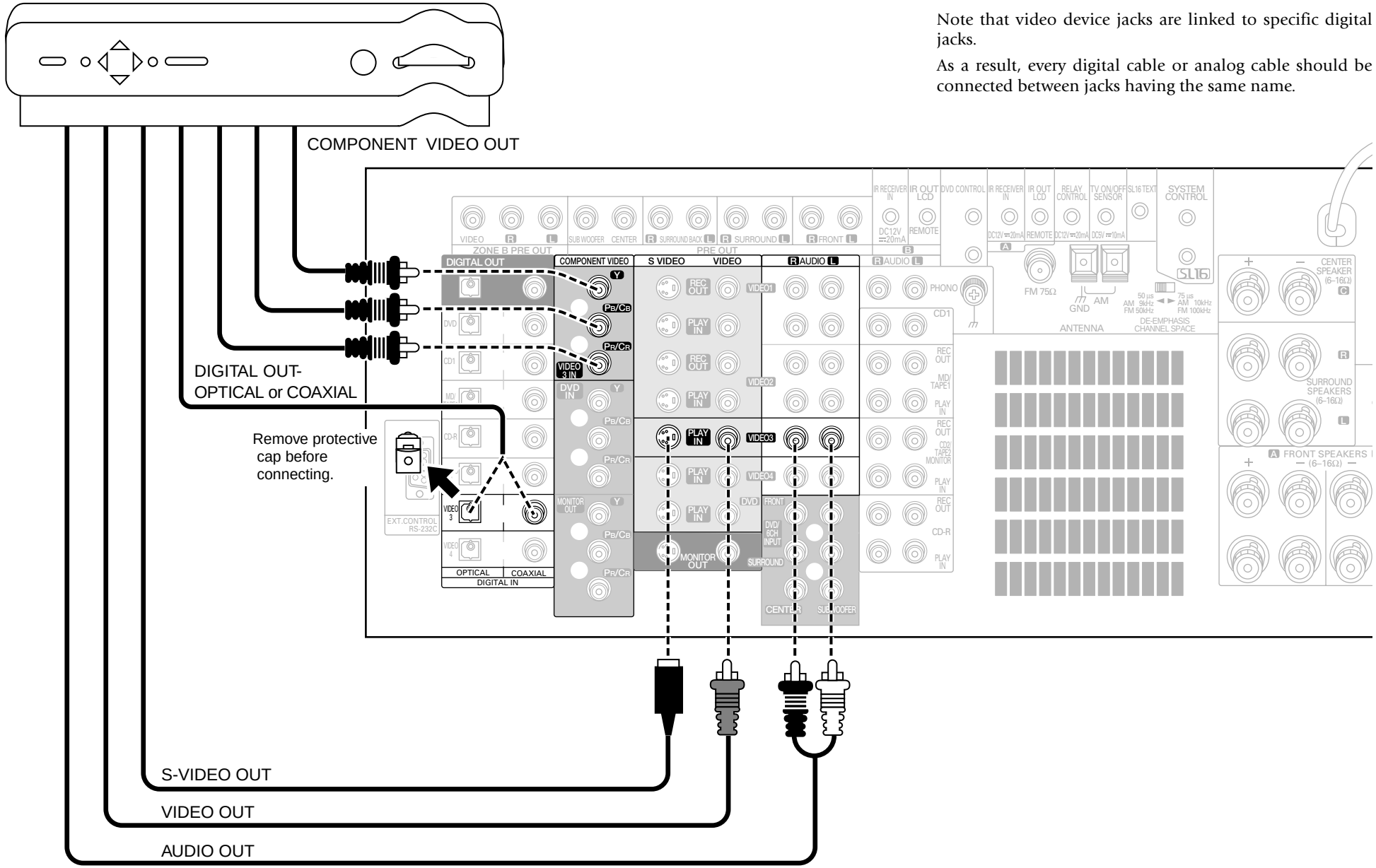
What if I Want to Watch TV without Turning on the Receiver?

The connection described here sets your TV up as a monitor you can use to view media played on your other video devices (such as a VCR or DVD player). You can still watch TV without having to use the receiver.

Connecting Your Cable TV or Satellite Tuner

Note that video device jacks are linked to specific digital jacks.

As a result, every digital cable or analog cable should be connected between jacks having the same name.



Connecting Your Cable TV or Satellite Tuner, continued

Do not plug in the receiver or devices to AC power until you have connected all your devices.

This section focuses on the connections from your cable or satellite tuner to the KRF-X9995D. Please refer to your tuner's instructions for more detail about its connection jacks and capabilities.

The instructions in this section show one of several possible variations on connecting your tuner. For further assistance on optional configurations, contact your cable or satellite provider.

To Connect a Cable TV Tuner with a Composite (RCA) Video Output:

1. Review the information under "Before You Begin" on page 1. It contains important notes about the types of video connections you can make.
2. Connect the audio and video cables from the cable tuner's Audio and Video OUT jacks to the receiver's **VIDEO2**, **VIDEO3**, or **VIDEO4 PLAY IN** jacks as shown to the left.

   When the component video cables are connected, the audio and video cables of the cable TV tuner should be connected to the **VIDEO3** jacks of the receiver.
3. If your cable TV tuner and TV have the COMPONENT VIDEO jacks, you can also connect them as shown on the left.
4. Go to "Noting Your Devices" on page 3 and note which jack you used to connect your tuner. In addition, note the brand name and model number of the tuner.

To Connect a Cable TV Tuner without a Composite (RCA) Video Output:

1. Connect the audio cables from the cable tuner's Audio Out jacks to the receiver's **VIDEO2**, **VIDEO3**, or **VIDEO4 PLAY IN** jacks as shown to the left.
2. Leave the cable tuner's video out (RF jack) connected directly to your VCR or TV (wherever you already have it connected).
3. Go to "Noting Your Devices" on page 3 and note which jack you used to connect your tuner. In addition, note the brand name and model number of the tuner.

To Connect a Satellite Tuner:

1. Review the information under "Before You Begin" on page 1. It contains important notes about the types of video connections you can make.
2. If your satellite tuner has a digital output jack, connect a digital (optical or coaxial) cable between the satellite tuner's digital output jack and the receiver's **VIDEO2**, **VIDEO3** or **VIDEO4** digital input jack as shown in the figure on the left.

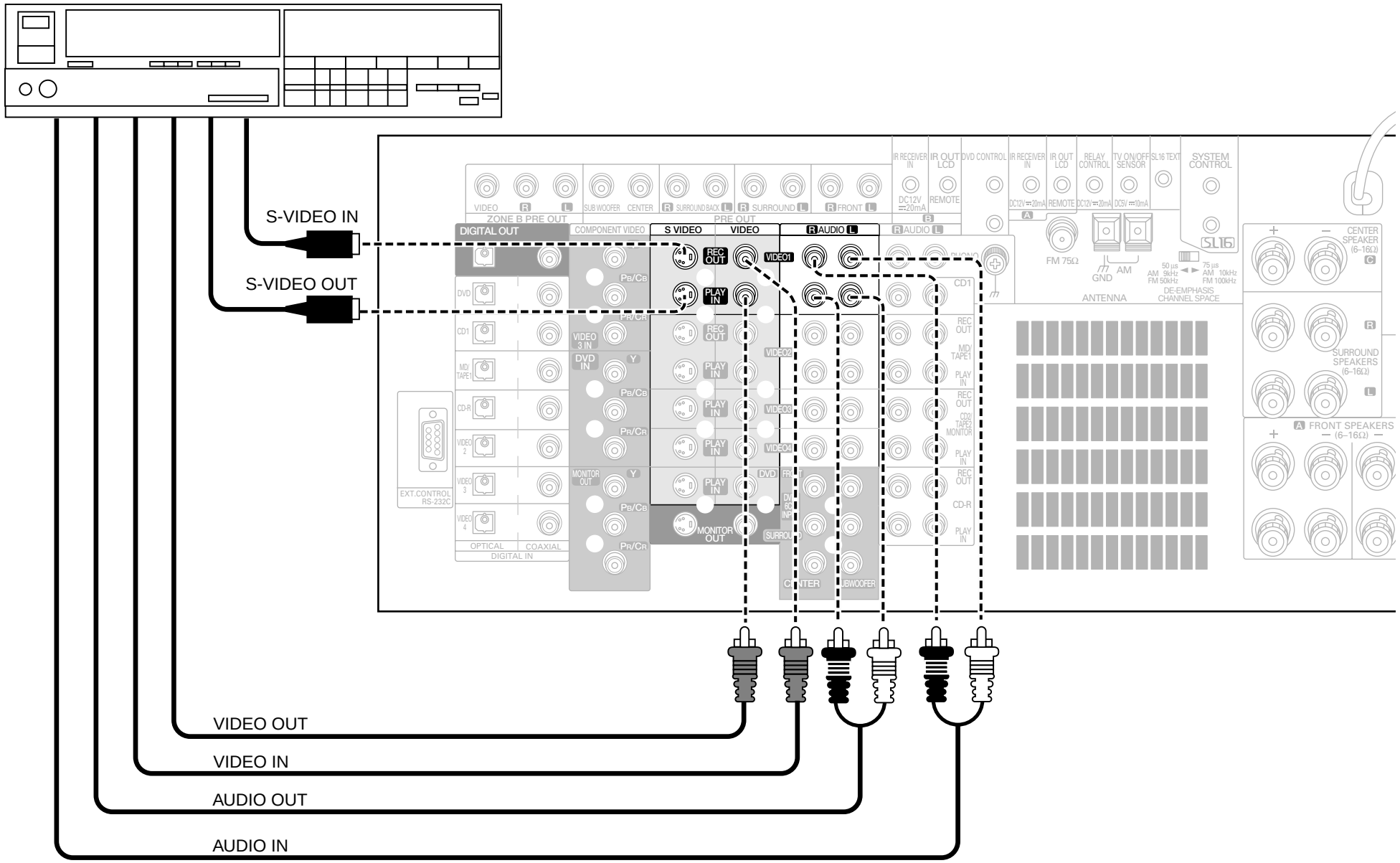
   The illustration shows two digital connections, one for coaxial connection and one for optical connection. Your satellite tuner supports one or the other of these connection methods—**do not** connect both.
3. Connect the audio and video cables from the satellite tuner's Audio and Video out jacks to the receiver's **VIDEO2**, **VIDEO3**, or **VIDEO4 PLAY IN** jacks as shown to the left.

   Note that the jack sets are linked, even though they are not adjacent. You **must** connect all of the cables from your satellite tuner to a linked jack set. For example, if you connect the analog cables to **VIDEO2** and the digital optical cable to **VIDEO3**, your satellite tuner will not work correctly.

   When the component video cables are connected, the audio and video cables of the satellite tuner should be connected to the **VIDEO3** jacks of the receiver.
4. If your satellite tuner and TV have the COMPONENT VIDEO jacks, you can also connect them as shown on the left.
5. Go to "Noting Your Devices" on page 3 and note which jack you used to connect your tuner. In addition, note the brand name and model number of the tuner.

When playing Dolby Digital or DTS-encoded software in multichannel configuration, the connected audio signal should be the digital signal.

Connecting Your VCR(s)



Connecting Your VCR(s), continued

Do not plug in the receiver to AC power until you have connected all your devices.

This section focuses on the connections from your VCR to the KRF-X9995D. Please refer to your VCR's instructions for more detail about its connection jacks and capabilities.

The instructions in this section show one of several possible variations on connecting your VCR. For further assistance on optional configurations, contact the store where you purchased your receiver.

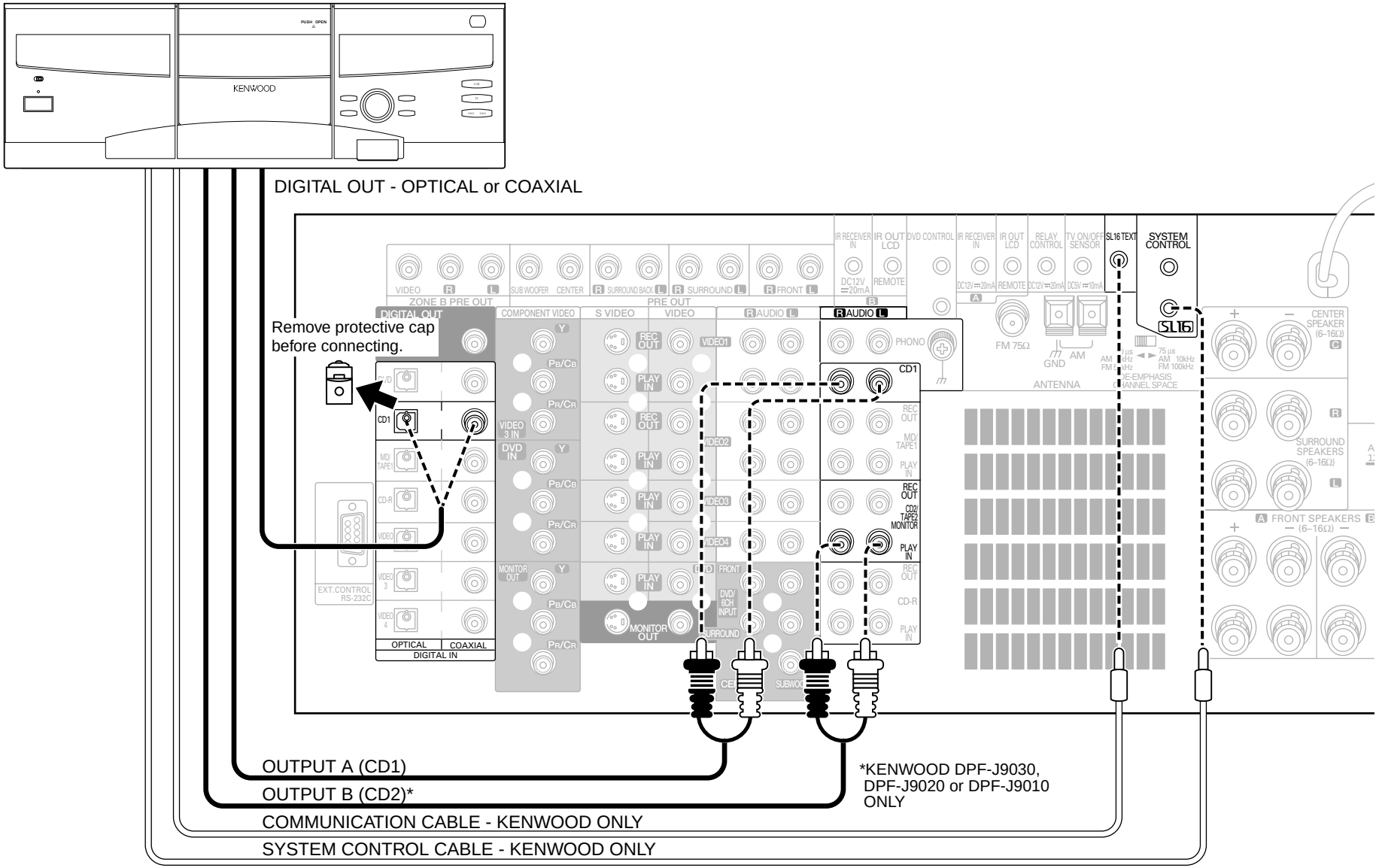
To Connect a Primary VCR:

1. Review the information under "Before You Begin" on page 1. It contains important notes about the types of video connections you can make.
2. Connect the audio and video cables from the VCR's Audio and Video jacks to the receiver's **VIDEO1 REC OUT** and **PLAY IN** jacks as shown to the left.
3. Be sure to connect the VCR VIDEO IN cable to the jack labeled REC OUT and the VIDEO OUT cable to the jack labeled PLAY IN.
4. Go to "Noting Your Devices" on page 3 and note which jack you used to connect your VCR. In addition, note the brand name and model number of the VCR.

To Connect a Secondary VCR:

1. Review the information under "Before You Begin" on page 1. It contains important notes about the types of video connections you can make.
2. Connect the audio and video cables from the VCR's Audio and Video jacks to the receiver's **VIDEO2** jacks.
3. Go to "Noting Your Devices" on page 3 and note which jack you used to connect your VCR. In addition, note the brand name and model number of the VCR.

Connecting Your Primary CD Player


KENWOOD
DIGITAL OUT - OPTICAL or COAXIAL
Remove protective cap before connecting.
OUTPUT A (CD1)
OUTPUT B (CD2)*
COMMUNICATION CABLE - KENWOOD ONLY
SYSTEM CONTROL CABLE - KENWOOD ONLY
*KENWOOD DPF-J9030, DPF-J9020 or DPF-J9010 ONLY

Connecting Your Primary CD Player, continued

Do not plug in the receiver to AC power until you have connected all your devices.

This section focuses on the connections from your 200-Disc CD Changer to the KRF-X9995D. Please refer to your changer's instructions for more detail about its connection jacks and capabilities.

Each set of instructions in this section shows one of several possible variations on connecting your CD player(s). For further assistance on optional configurations, contact the store where you purchased your CD player(s).

The illustration shows a Kenwood 200-Disc CD Changer. Your CD player may look different.

The Kenwood DPF-J9030, DPF-J9020 and DPF-J9010 200-Disc Changers contain two CD transports. You must connect these devices as though they were two CD players.

What if I Have a Video CD-Compatible CD Player?

Connect the audio and video cables from the CD player to any unused Video jack set.

Do not connect the system control cable in this instance.

To Connect a Kenwood 200-Disc CD Changer:

1. Connect one set of audio cables from the 200-Disc Changer to the receiver's **CD1** jacks. If you have a DPF-J9030, DPF-J9020 or DPF-J9010, connect Output A to the receiver's **CD1** jacks and Output B to the receiver's **CD2/TAPE2 MONITOR PLAY IN** jacks as shown to the left.
2. Connect the digital cable from the changer to the receiver's **CD1** digital jack as shown to the left.

   The illustration shows two digital connections, one for coaxial connection and one for optical connection. Your CD player supports one or the other of these connection methods—**do not** connect both.
3. Connect the system control cable from the changer to the **SYSTEM CONTROL** jack as shown to the left.

   Be sure that the SL16/XS8 switch on the changer is set to SL16.

   If you are connecting more than one Kenwood device with a system control cable, see "What if I Have Several Kenwood Devices (System Control Chaining)?" on page 32 for more information.
4. Connect the SL16 text cable (communication cable) from the changer to the receiver's **SL16 TEXT** jack as shown to the left.
5. Go to "Noting Your Devices" on page 3 and note which jacks you used to connect your CD changer. In addition, note the brand name and model number of the CD Changer.

To Connect Any Other Primary CD Player or Changer:

1. Connect the audio cables from the CD player's audio jacks to the receiver's **CD1** jack set as shown to the left.
2. Connect the digital cable from the CD player's digital jack to the receiver's **CD1** digital jack as shown to the left.

   The illustration shows two digital connections, one for coaxial connection and one for optical connection. Your CD player supports one or the other of these connection methods—**do not** connect both.
3. If you are connecting a Kenwood CD Player with system control, connect the **SYSTEM CONTROL** cable from the CD player to the system control jack as shown to the left.

   Be sure that the SL16/XS8 switch on the player/changer is set to SL16.

   If you are connecting more than one Kenwood device with a system control cable, see "What if I Have Several Kenwood Devices (System Control Chaining)?" on page 32 for more information.
4. Go to "Noting Your Devices" on page 3 and note which jacks you used to connect your CD player/changer. In addition, note the brand name and model number of the CD player or changer.

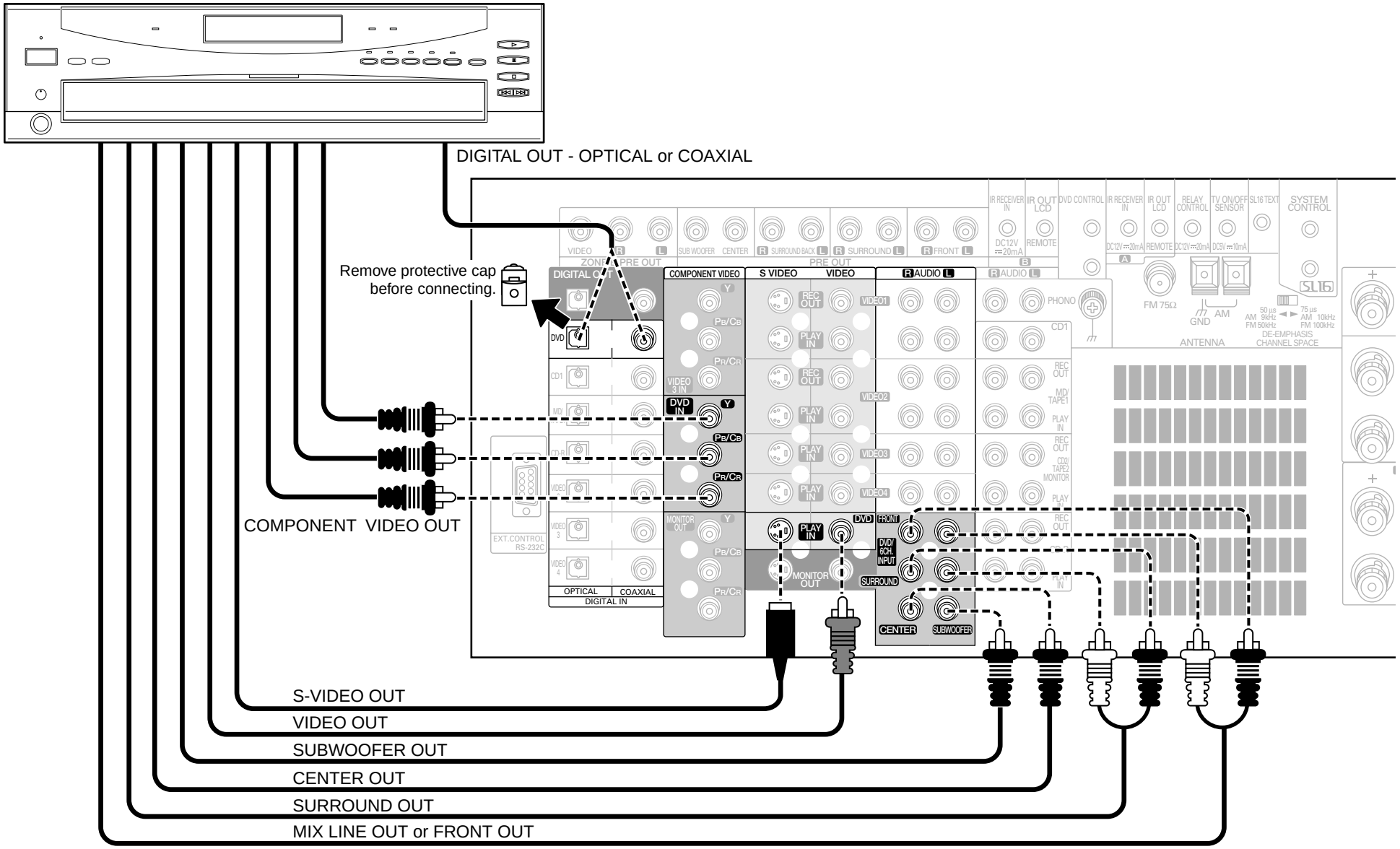
To Connect a Secondary CD Player:

See "Connecting Your Secondary CD Player or Tape Deck" on page 24.

Do not connect the system control cable in this instance.

When playing a HDCD disc in the HDCD format (high quality mode), use the digital connection jack.

Connecting Your DVD Player



Connecting Your DVD Player, continued

NOTES

Do not plug in the receiver to AC power until you have connected all your devices.

This section focuses on the connections from your DVD player to the KRF-X9995D. Please refer to your DVD player's instructions for more detail about its connection jacks and capabilities.

The instructions in this section show one of several possible variations on connecting your DVD player. For further assistance on optional configurations, contact the store where you purchased your receiver.

To Connect a DVD Player:

1. Review the information under "Before You Begin" on page 1. It contains important notes about the types of video connections you can make.
2. Connect the video cables from the DVD's Video jacks to the receiver's **DVD PLAY IN** jacks as shown to the left.

   If your DVD and TV have the COMPONENT VIDEO jacks, you can also connect them as shown on the left.
3. Connect the audio cables from the DVD's audio jacks (AUDIO OUT, FRONT or MIX LINE OUT) to the receiver's **FRONT** jacks of **DVD/6CH. INPUT**.

   When the DVD player provides the DVD 6CH (DVD 5.1 CH) outputs, connect them to the **FRONT**, **SURROUND**, **CENTER** and **SUBWOOFER** input jacks. (optional)
4. Connect the digital cable (either optical or coaxial) from the DVD's digital jack to the appropriate digital jack on the receiver as shown to the left.

   The illustration shows two digital connections, one for coaxial connection and one for optical connection. Your DVD player supports one or the other of these connection methods—**do not** connect both.

   If you use the optical digital cable, be sure to remove the protective cover from the optical jack before connecting.
5. Go to "Noting Your Devices" on page 3 and note which jacks you used to connect your DVD player. In addition, note the brand name and model number of the DVD player.

NOTES

When playing Dolby Digital or DTS-encoded software in multichannel configuration, the connected audio signal should be the digital signal.

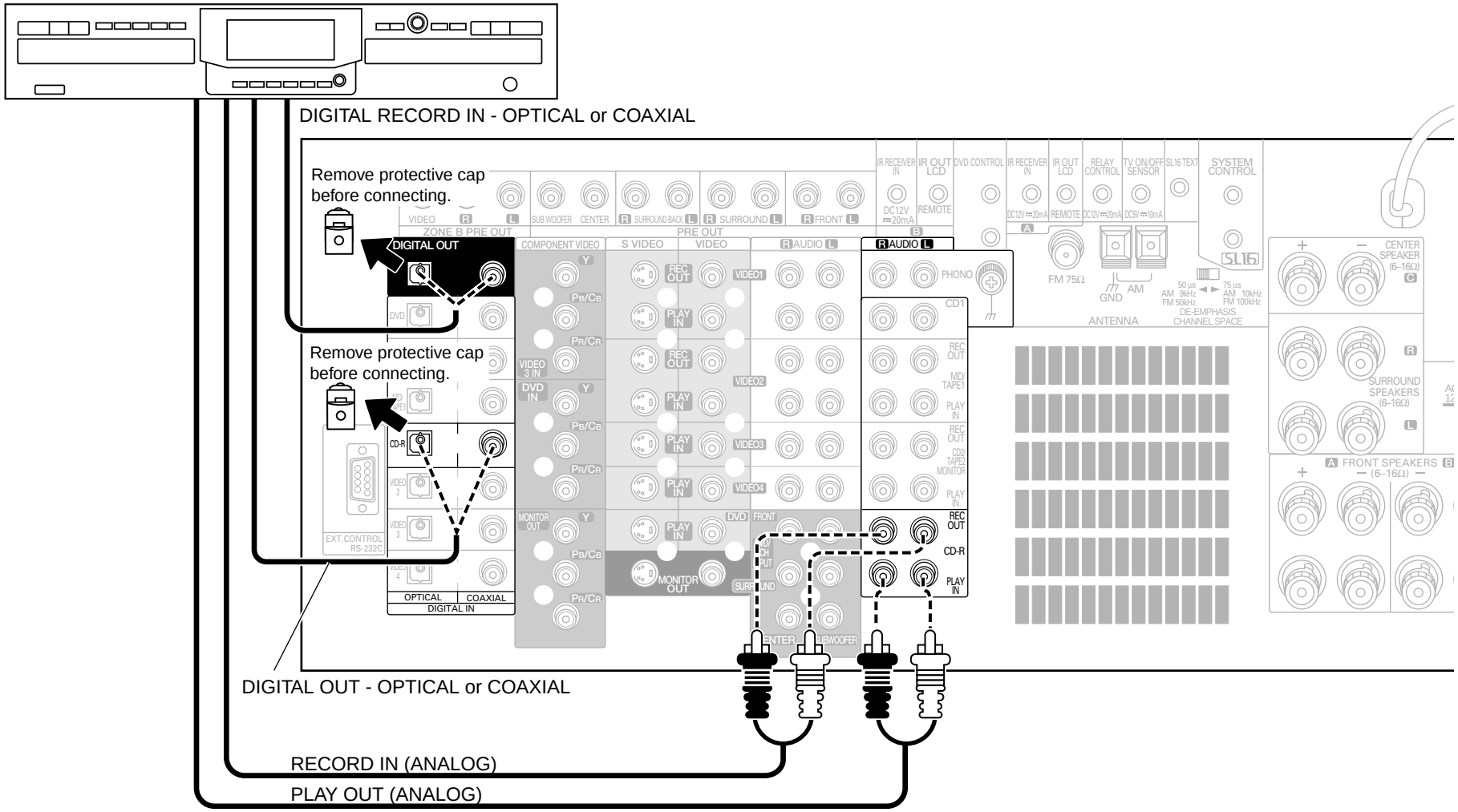
The digital inputs of the KRF-X9995D are not compatible with an audio signal with 192 kHz sampling frequency or 96 kHz multichannel audio signal. These signals should be input to the analog or **DVD/6CH. INPUT** jacks.

DTS disclaimer clause

DTS Digital Surround™ is a discrete 5.1 channel digital audio format available on CD, LD, and DVD software which consequently cannot be decoded and played back inside most CD, LD, or DVD players. For this reason, when DTS-encoded software is played back through the analog outputs of the CD, LD, or DVD player, excessive noise will be exhibited. To avoid possible damage to the audio system, proper precautions should taken by the consumer if the analog outputs are connected directly to an amplification system. To enjoy DTS Digital Surround™ playback, an external 5.1 channel DTS Digital Surround™ decoder system must be connected to the digital output (S/PDIF, AES/EBU, or TosLink) of the CD, LD or DVD player.

This unit is equipped with DTS Digital Surround™ decoder.

Connecting Your CD-R Recorder



Connecting Your CD-R Recorder, continued

Do not plug in the receiver to AC power until you have connected all your devices.

This section focuses on the connections from your CD-R recorder to the KRF-X9995D. Please refer to your CD-R recorder instructions for more detail about its connection jacks and capabilities.

Each set of instructions in this section shows one of several possible variations on connecting your CD-R recorder. For further assistance on optional configurations, contact the store where you purchased your CD-R recorder.

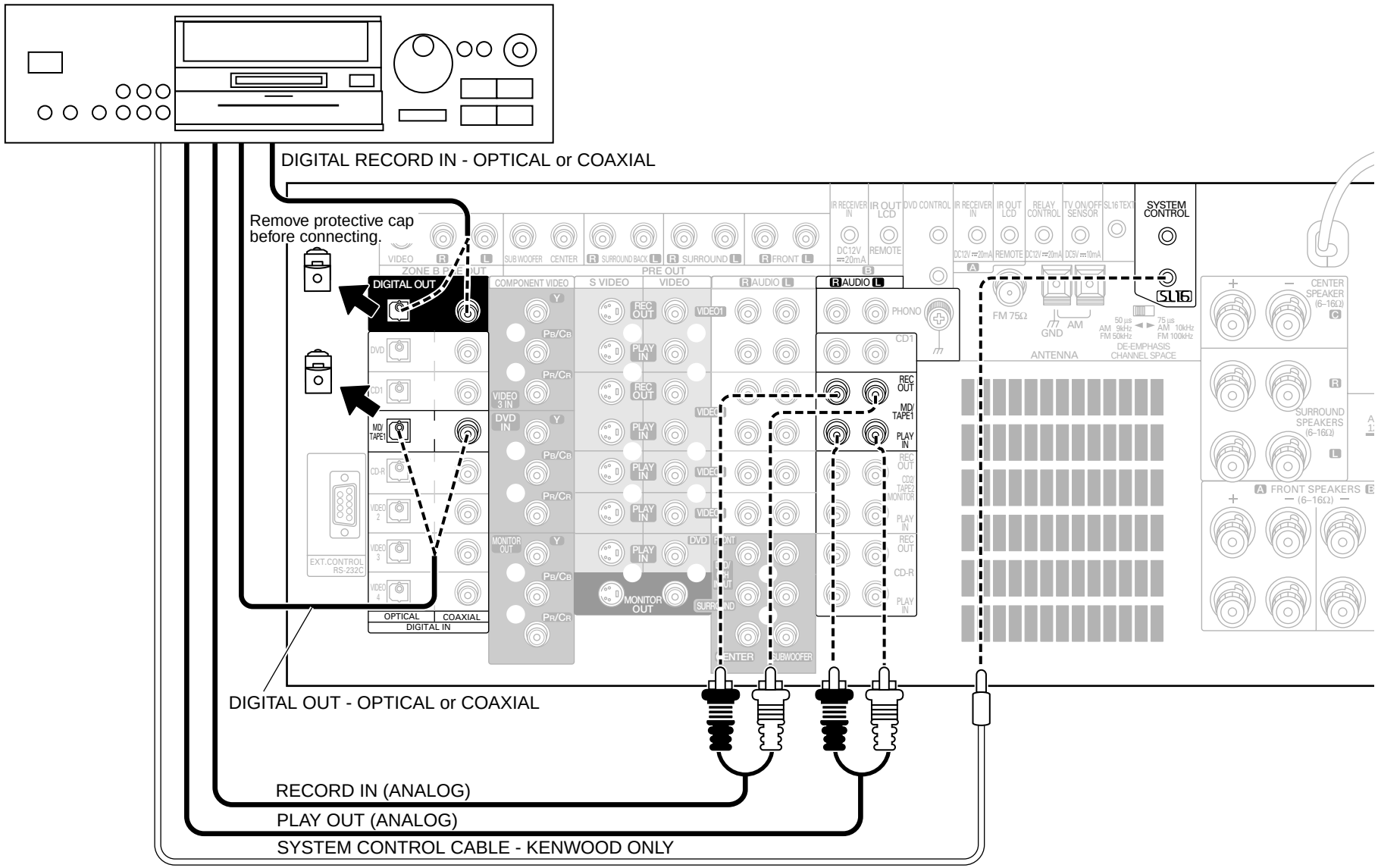
To Connect a CD-R Recorder:

1. Connect the audio cable from the CD-R recorder's Play OUT jacks to the receiver's **CD-R PLAY IN** jacks as shown to the left.
2. Connect the audio cable from the CD-R recorder's Rec IN jacks to the receiver's **CD-R REC OUT** jacks, as shown to the left.
3. Connect the digital cable (either optical or coaxial) from the CD-R's digital jack to the appropriate digital jack on the receiver as shown to the left.

   The illustration shows two digital connections, one for coaxial connection and one for optical connection. Your CD-R recorder supports one or the other of these connection methods—**do not** connect both.

   You only need to connect to the digital output jack if you will be recording from sources that are connected to a digital input jack, such as a CD or DVD player.
4. Go to "Noting Your Devices" on page 3 and note which jacks you used to connect your CD-R recorder. In addition, note the brand name and model number of the CD-R recorder.

Connecting Your MD Recorder or Primary Tape Deck



Connecting Your MD Recorder or Primary Tape Deck, continued

Do not plug in the receiver to AC power until you have connected all your devices.

This section focuses on the connections from your MD recorder or tape deck to the KRF-X9995D. Please refer to your MD recorder or tape deck's instructions for more detail about its connection jacks and capabilities.

Each set of instructions in this section shows one of several possible variations on connecting your MD recorder or tape deck. For further assistance on optional configurations, contact the store where you purchased your MD recorder or tape deck.

To Connect an MD Recorder:

1. Connect the audio cable from the MD recorder's Play OUT jacks to the receiver's **MD/TAPE1 PLAY IN** jacks as shown to the left.
2. Connect the audio cable from the MD recorder's Rec IN jacks to the receiver's **MD/TAPE1 REC OUT** jacks, as shown to the left.
3. Connect the digital cable (either optical or coaxial) from the MD's digital jack to the appropriate digital jack on the receiver as shown to the left.

   The illustration shows two digital connections, one for coaxial connection and one for optical connection. Your MD recorder supports one or the other of these connection methods—**do not** connect both.

   You only need to connect to the digital output jack if you will be recording from sources that are connected to a digital input jack, such as a CD or DVD player.
4. If you are connecting a Kenwood MD recorder, connect the system control cable from the MD recorder to the receiver.

   If you are connecting more than one Kenwood device with a system control cable, see "What if I Have Several Kenwood Devices (System Control Chaining)?" on page 32.
5. Go to "Noting Your Devices" on page 3 and note which jacks you used to connect your MD recorder. In addition, note the brand name and model number of the MD recorder.

To Connect a Primary Tape Deck:

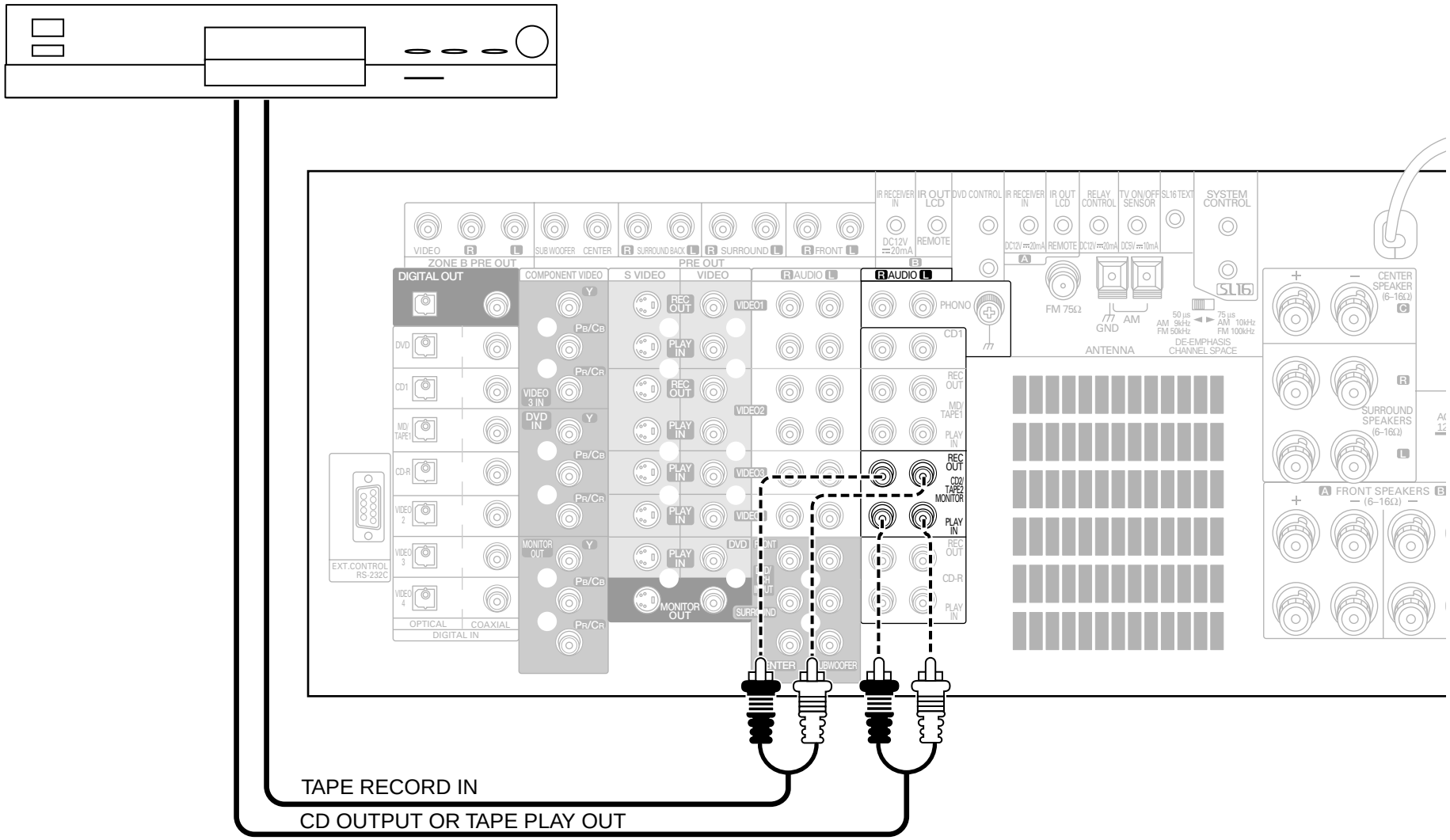
1. Connect the audio cable from the tape deck's Play OUT jacks to the receiver's **MD/TAPE1 PLAY IN** jacks as shown to the left.
2. Connect the audio cable from the tape deck's Rec IN jacks to the receiver's **MD/TAPE1 REC OUT** jacks as shown to the left.
3. If you are connecting a Kenwood tape deck with system control, connect the system control cable from the tape deck to the receiver. Be sure that the SL16/XS8 switch on the tape deck is set to SL16.

   If you are connecting more than one Kenwood device with a system control cable, see "What if I Have Several Kenwood Devices (System Control Chaining)?" on page 32.
4. Go to "Noting Your Devices" on page 3 and note which jacks you used to connect your tape deck. In addition, note the brand name and model number of the tape deck.

To Connect a Secondary Tape Deck:

See "Connecting Your Secondary CD Player or Tape Deck" on page 24.

Connecting Your Secondary CD Player or Tape Deck



Connecting Your Secondary CD Player or Tape Deck, continued

Do not plug in the receiver to AC power until you have connected all your devices.

This section focuses on the connections from your CD player or tape deck to the KRF-X9995D. Please refer to your CD player or tape deck's instructions for more detail about its connection jacks and capabilities.

Each set of instructions in this section shows one of several possible variations on connecting your CD player or tape deck. For further assistance on optional configurations, contact the store where you purchased your CD player or tape deck.

Do not connect a system control cable from any unit connected via the **CD2/TAPE2 MONITOR** jacks.

To Connect a Secondary CD Player:

1. Connect the audio cables from the CD player's audio jacks to the receiver's **CD2/TAPE2 MONITOR PLAY IN** jack set as shown to the left.

   Do not connect the system control cable from the second CD player, even if it supports system control.
2. Go to "Noting Your Devices" on page 3 and note which jacks you used to connect your CD player. In addition, note the brand name and model number of the CD player.

If you connect a second tape deck, you cannot connect a second CD player.

To Connect a Secondary Tape Deck:

1. Connect the audio cable from the tape deck's Play OUT jacks to the receiver's **CD2/TAPE2 MONITOR PLAY IN** jacks.
2. Connect the audio cable from the tape deck's Rec IN jacks to the receiver's **CD2/TAPE2 MONITOR REC OUT** jacks.

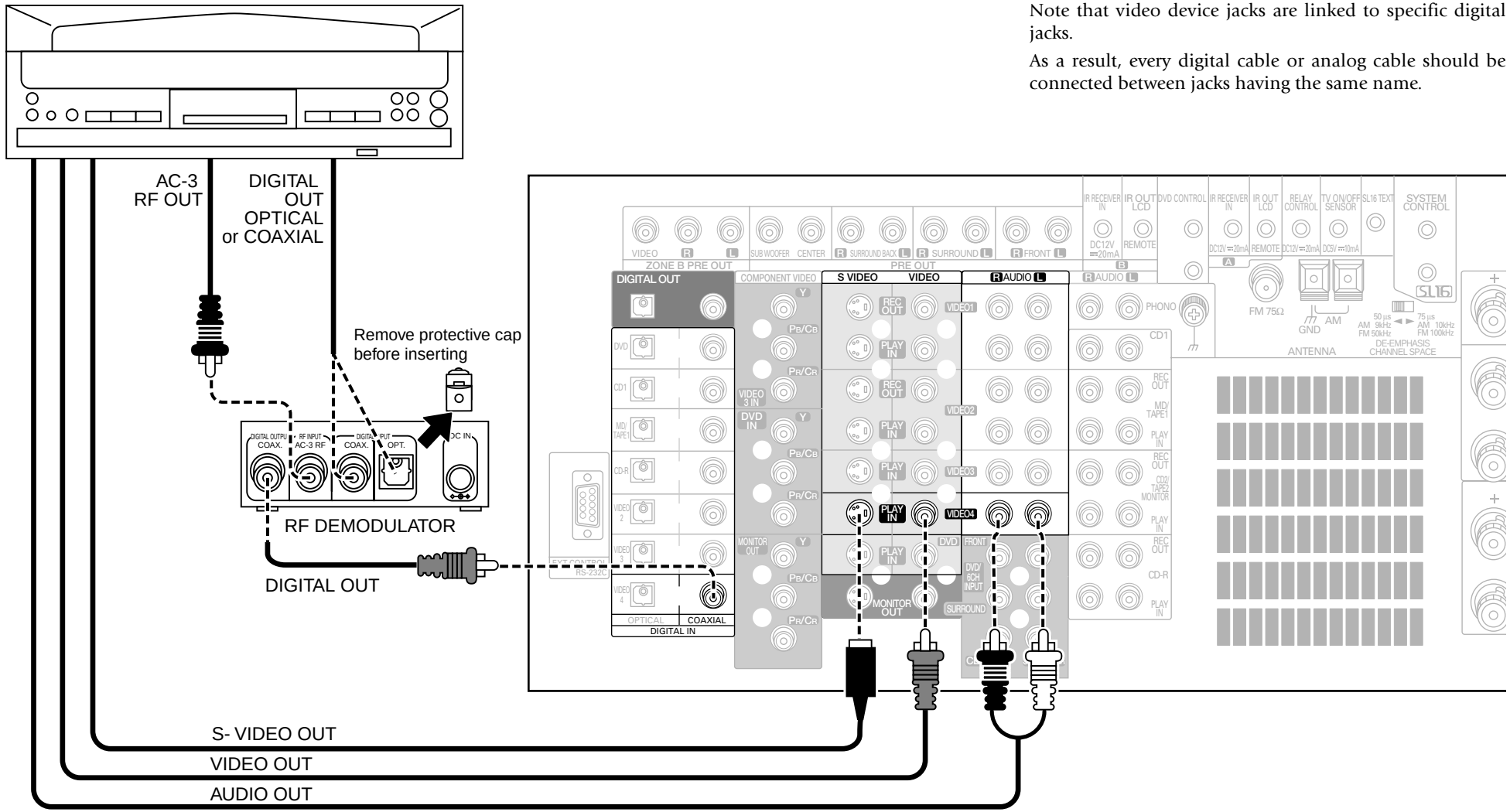
   Do not connect the system control cable from the second tape deck, even if it supports system control.
3. Go to "Noting Your Devices" on page 3 and note which jacks you used to connect your tape deck. In addition, note the brand name and model number of the tape deck.

If you connect a second CD player, you cannot connect a second tape deck.

Connecting Your Laser Disc Player (with AC-3 RF Output)

Note that video device jacks are linked to specific digital jacks.

As a result, every digital cable or analog cable should be connected between jacks having the same name.



Connecting Your Laser Disc Player (with AC-3 RF Output), continued

Do not plug in the receiver to AC power until you have connected all your devices.

You must purchase an RF Demodulator (DEM-9991D) if you plan to operate a player with a Dolby Digital (AC-3) RF output with this receiver.

These instructions describe how to connect a laser disc player with an AC-3 RF output. If your laser disc player does not have an AC-3 RF output, see "Connecting Your Laser Disc Player (without AC-3 RF Output)" on page 28. Please refer to your laser disc player's instructions for more detail about its connection jacks and capabilities.

The instructions in this section show one of several possible variations on connecting your laser disc player. For further assistance on optional configurations, contact the store where you purchased your receiver.

To Connect an AC-3 RF Output Laser Disc Player:

1. Review the information under "Before You Begin" on page 1. It contains important notes about the types of video connections you can make.
2. Connect the audio cables from the laser disc player's Audio OUT jacks to the receiver's **AUDIO** jacks (**VIDEO 4 PLAY IN**) as shown to the left.

   Do not connect the digital cable (optical or coaxial) yet; it must be connected via the demodulator as described in the following steps.
3. Connect the AC-3 RF coaxial cable from the laser disc player's AC-3 RF OUT jack to the demodulator's **RF INPUT AC-3 RF** jack as shown to the left.
4. Connect the digital cable (either optical or coaxial) from the laser disc player's digital jack to the appropriate **DIGITAL INPUT** jack on the demodulator as shown to the left. Set the switch on the front of the DEM-9991D to the type of connection you made.
5. Connect the coaxial digital cable from the demodulator's **DIGITAL OUTPUT COAX**. jack to the receiver's **VIDEO4 COAXIAL** jack.
6. Connect the demodulator's supplied 12V AC adapter to the DC IN jack on the demodulator. **Do not** plug the adapter into the wall until you have finished making all connections to the receiver.
7. Go to "Noting Your Devices" on page 3 and note which jacks you used to connect your laser disc player. In addition, note the brand name and model number of the laser disc player.

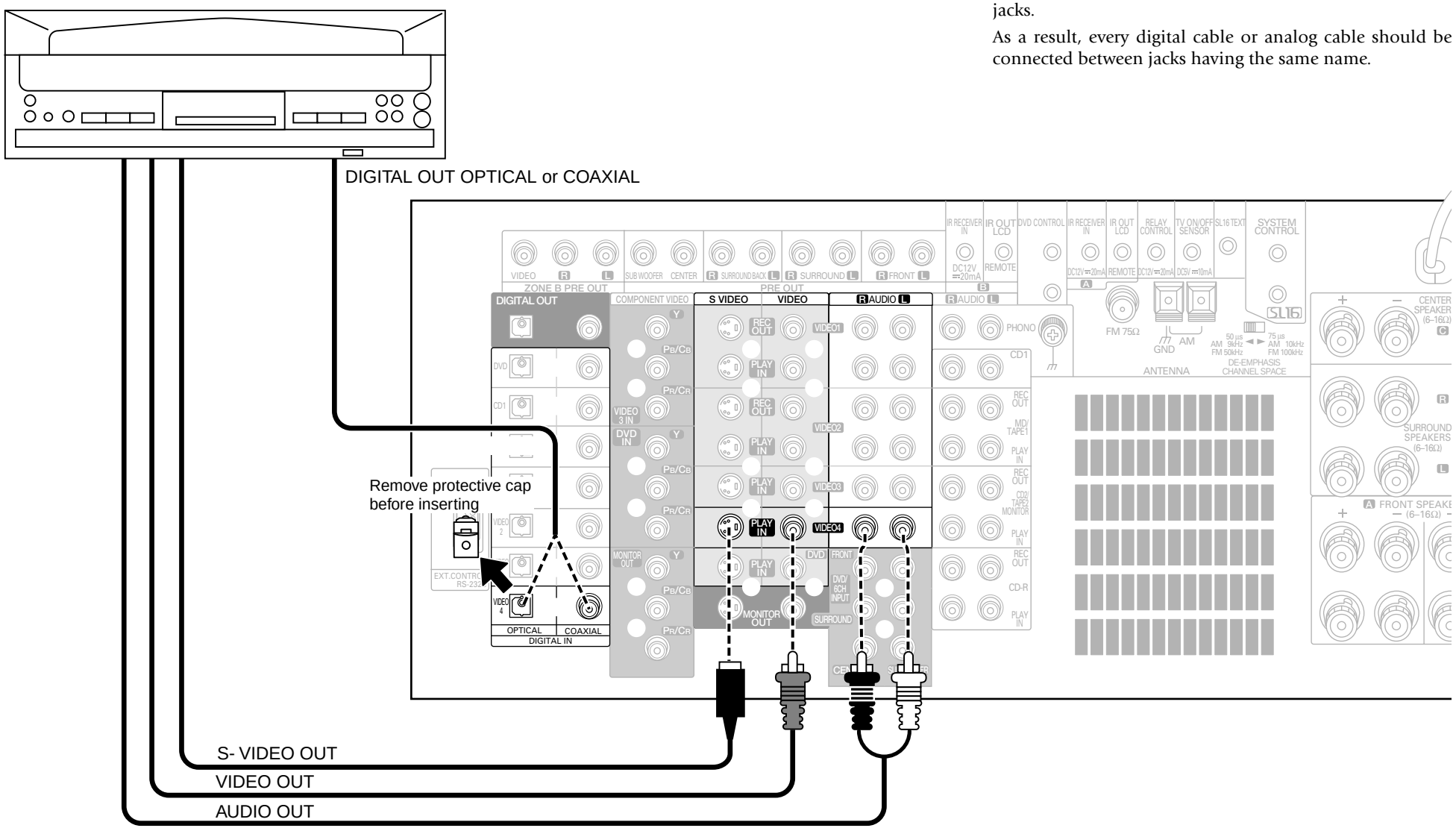
When playing Dolby Digital* or DTS-encoded software in multichannel configuration, the connected audio signal should be the digital signal.

* When playing a LaserDisc recorded in the Dolby Digital format, connect the AC-3 RF output to the receiver.

Connecting Your Laser Disc Player (without AC-3 RF Output)

Note that video device jacks are linked to specific digital jacks.

As a result, every digital cable or analog cable should be connected between jacks having the same name.



Connecting Your Laser Disc Player (without AC-3 RF Output), continued

Do not plug in the receiver to AC power until you have connected all your devices.

These instructions describe how to connect a laser disc player with a PCM Digital Output. If your player has a Dolby Digital (AC-3) RF Out, see "Connecting Your Laser Disc Player (with AC-3 RF Output)" on page 26. This configuration does not allow Dolby Digital laser discs to be played. Please refer to your laser disc player's instructions for more detail about its connection jacks and capabilities.

The instructions in this section show one of several possible variations on connecting your laser disc player. For further assistance on optional configurations, contact the store where you purchased your receiver.

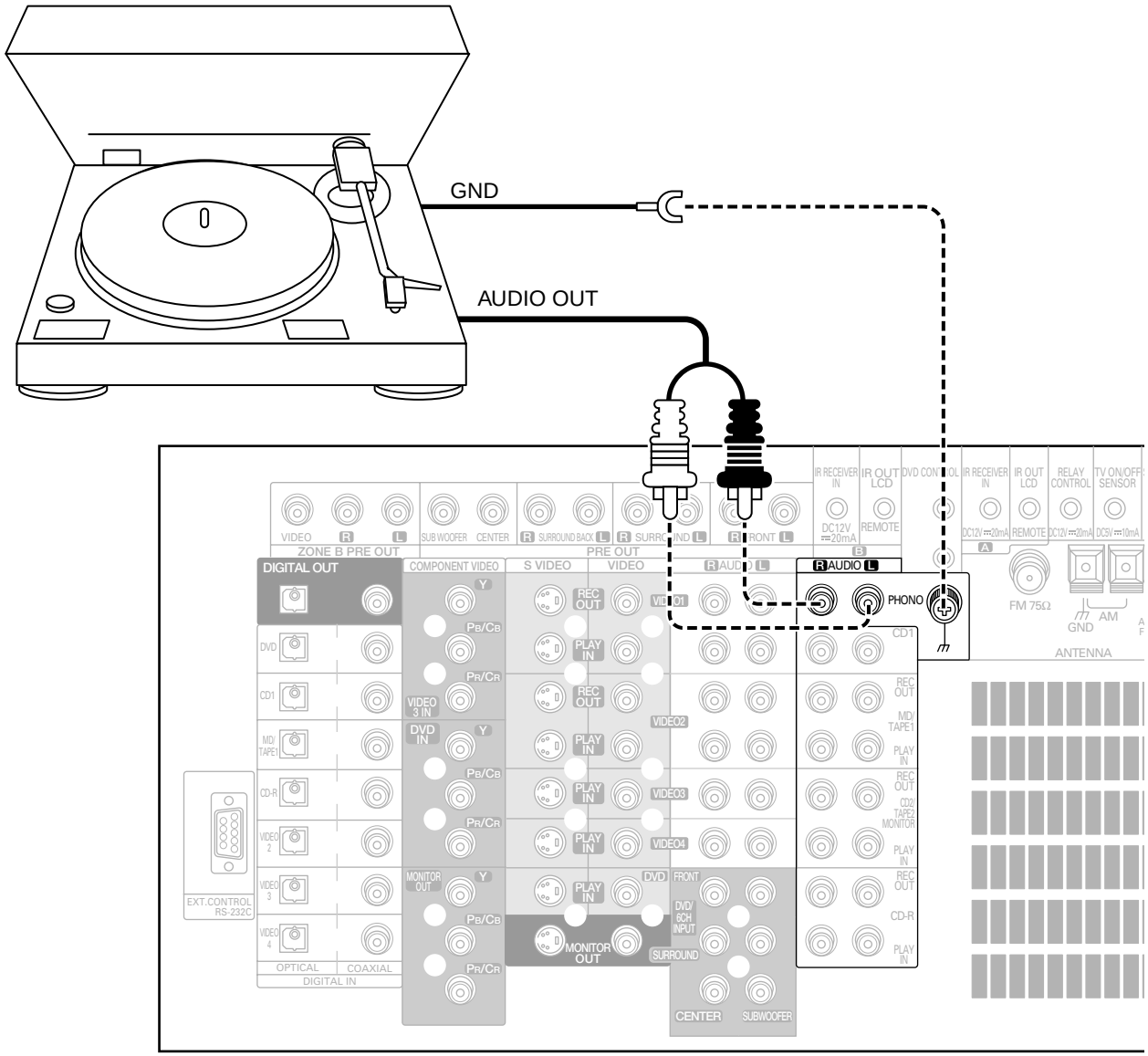
To Connect a PCM Digital Output Laser Disc Player:

1. Review the information under "Before You Begin" on page 1. It contains important notes about the types of video connections you can make.
2. Connect the audio cables from the laser disc player's Audio OUT jacks to the receiver's **AUDIO** jacks (**VIDEO 4 PLAY IN**) as shown to the left.
3. Connect the video cable from the laser disc player's Video OUT jack to the receiver's **VIDEO PLAY IN** jack as shown to the left.

   Note that the jack sets are linked, even though they are not adjacent. You **must** connect all of the cables from your laser disc player to a linked jack set. If you connect the analog cables to **VIDEO3** and the digital optical cable to **VIDEO4**, your laser disc player will not work correctly.
4. Connect the digital cable (either optical or coaxial) from the laser disc player's digital jack to the appropriate digital jack on the receiver as shown to the left. Your laser disc player supports only one of the digital connection methods—**do not** connect both.
5. Go to "Noting Your Devices" on page 3 and note which jacks you used to connect your laser disc player. In addition, note the brand name and model number of the laser disc player.

When playing DTS-encoded software in multichannel configuration, the connected audio signal should be the digital signal.

Connecting Your Turntable/Record Player



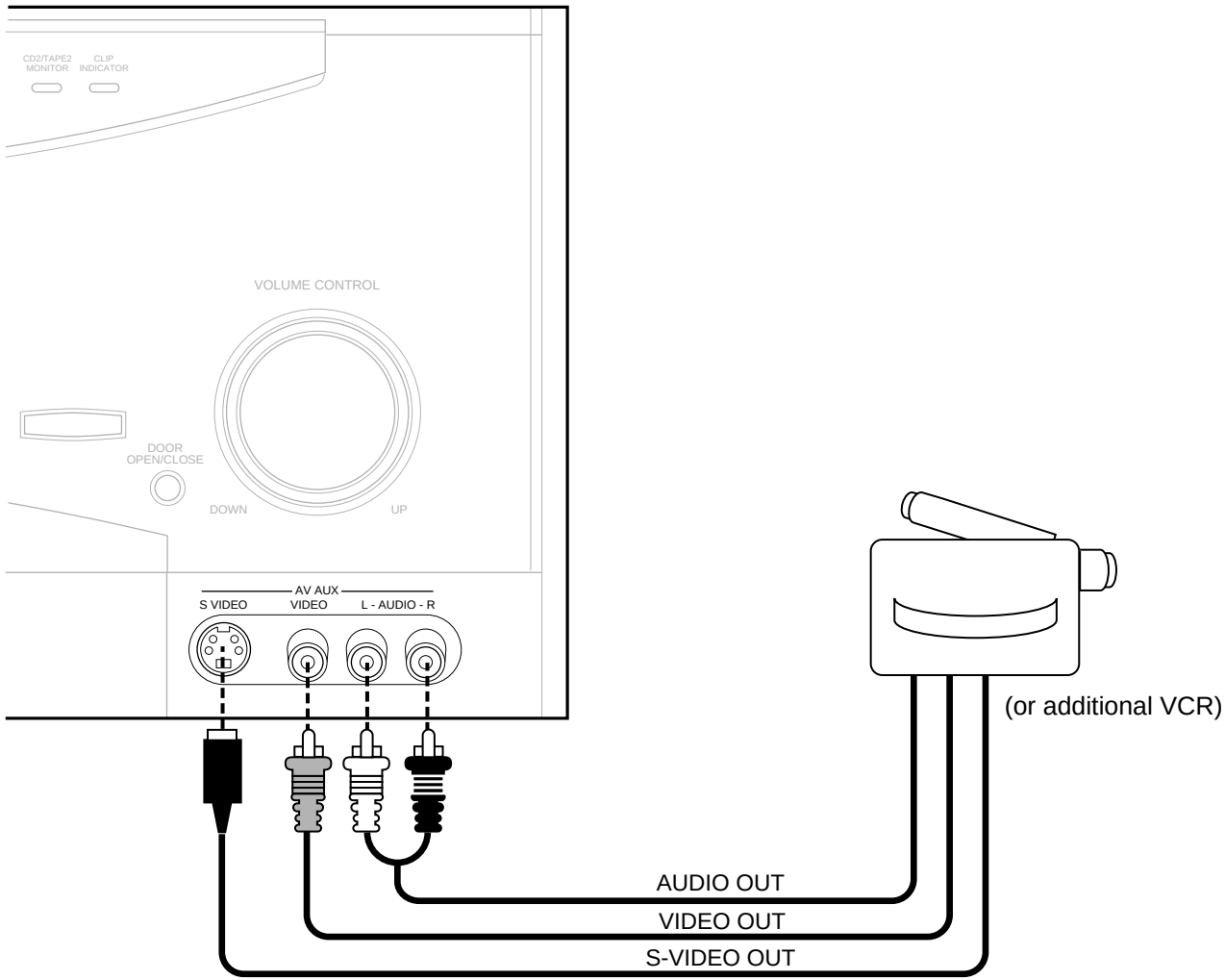
Do not plug in the receiver to AC power until you have connected all your devices.

This section focuses on the connections from your turntable/record player to the KRF-X9995D. Please refer to your turntable/record player's instructions for more detail about its connection jacks and capabilities.

To Connect a Turntable/Record Player:

1. Connect the audio cables from the turntable audio output jacks to the receiver's **PHONO R** and **L** jacks.
2. If your turntable includes a ground cable, connect the ground cable to the receiver's ⏚ (ground) jack.
3. Go to "Noting Your Devices" on page 3 and note which jacks you used to connect your turntable. In addition, note the brand name and model number of the turntable.

Connecting a Camcorder or Additional VCR



This section focuses on the connections from your camcorder or VCR to the front of the KRF-X9995D. Please refer to your camcorder or VCR's instructions for more detail about its connection jacks and capabilities.

These instructions describe how to connect a camcorder or VCR quickly and probably temporarily to the front of the receiver. If you want a less cluttered and more permanent connection, see "Can I Connect an Additional VCR Permanently?", below.

To Connect a Camcorder or Additional VCR:

Connect the audio and video cables from the camcorder or VCR's Audio and Video jacks to the receiver's front panel jacks as shown to the left.

Can I Connect an Additional VCR Permanently?

Yes. To do so, follow the instructions under "To Connect a Secondary VCR:" on page 15.

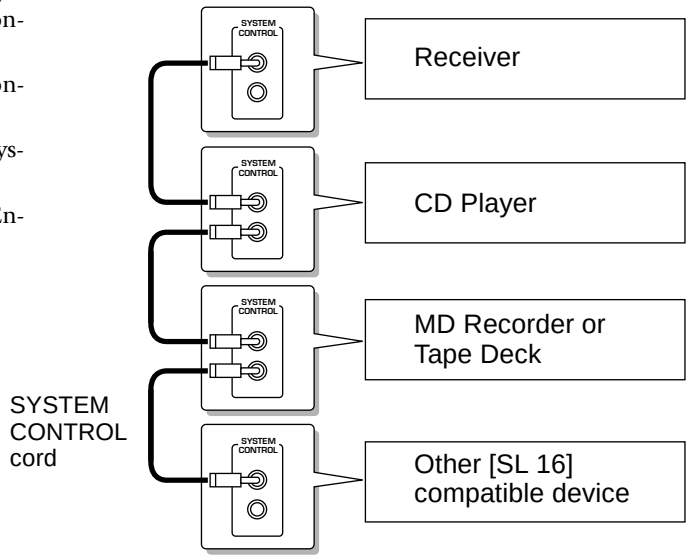
What if I Have Several Kenwood Devices (System Control Chaining)?

Connecting system control cords after connecting a Kenwood audio component system lets you take advantage of convenient system control operations.

This unit is compatible only with the [SL16] mode. The system control operation is not available if the unit is connected in the [XS8] connection mode.

If your component has the mode select switch, set the connected components to the [SL16] mode.

- You can connect the system control cord to either system control jack of the unit.
- Do this operation after completing all connections. (Ensure that the power plug is not connected.)



System Control connection allows you to:

- See the current status of the selected source device, such as *Play* or *Stop*
- control connected devices via the remote
- switch the receiver's input automatically to a connected device when you start playback from that device
- synchronize recording a CD automatically when you start playback from the connected CD player

Make sure the units are connected to the correct jacks on the receiver—for example, no device connected to the **CD2/ TAPE2 MONITOR** jacks can use a system control cable.

Some CD players and cassette decks do not support the SL16 system control mode. Do not include these devices in a set of SL16 chained connections.

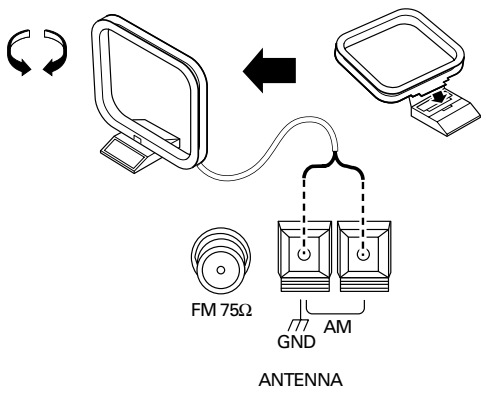
Do not mix connections of the two modes: if a device does not support the mode you are using for chaining, do not connect that device.

Do not connect system control cables to any device not specified by Kenwood. Using system control functions with a device that does not support them can damage the device.

Make sure system control plugs are firmly seated in the appropriate jacks.

Connecting the Antennas

AM Loop Antenna

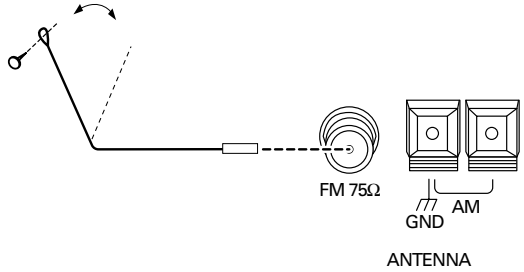


Your new receiver comes with an AM loop antenna for AM radio reception. To connect the AM antenna:

1. Insert the antenna loop into the base and position the loop.
2. Open the receiver's antenna terminal levers.
3. Insert the antenna's wires into the terminal as shown above.
4. Close the antenna terminal levers to lock the wires in place.
5. Adjust the antenna loop as necessary to improve reception.

To prevent hum interference, keep the AM antenna wires away from speaker wires, AC power cords, the TV chassis, and the receiver.

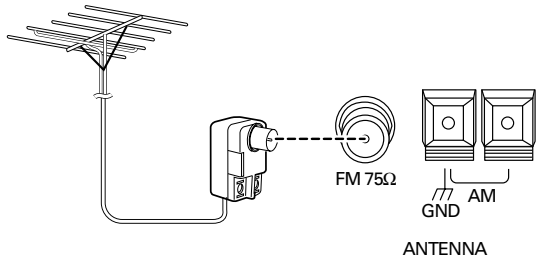
FM Indoor Antenna



Your new receiver also comes with an FM indoor antenna for FM radio reception. To connect the FM antenna:

1. Attach the antenna sheath to the pole in the center of the receiver's FM antenna jack, as shown above. When you attach the sheath for the first time, you may need to exert quite a bit of pressure.
2. Adjust the antenna as necessary to improve reception.
3. Tack the looped end of the antenna in the location that provides the best reception.

FM Outdoor Antenna



Kenwood recommends a permanently installed outdoor FM antenna for best FM reception. To connect an outdoor FM antenna:

1. Connect the antenna wire to a standard, commercially available antenna adapter as shown above.
2. Connect the adapter to the receiver's FM antenna jack.

What if I Have Cable Radio?

If you have cable radio, contact your cable provider for assistance with connecting to the KRF-X9995D.

Chapter Two: Setting Up PowerTouch

Your new PowerTouch controls your new receiver and can be set up to control most components attached to it. PowerTouch appears and functions a little differently from traditional remotes. It incorporates sophisticated engineering and design to allow you to simply touch the screen to press buttons and operate controls. You can touch the screen with your finger or with the stylus stored at the top of the PowerTouch.

Because it can control so many different devices, it presents a separate set of controls for each device on an LCD screen. Touch an icon on the screen to access further menus or controls for devices.

Only devices previously identified and connected to the receiver will appear as icons on the display screen. If you are "missing" an icon on your display screen, make sure you have identified the device to PowerTouch. This chapter describes identifying devices to PowerTouch.

This chapter contains the following sections:

Installing the Batteries	page 34
Calibrating the Touch Screen	page 35
Selecting the Model Type	page 35
Navigating PowerTouch Interface	page 36
Setting Up Speakers	page 37
Identifying Devices For PowerTouch Control	page 40
Storing Radio Stations in Memory	page 41

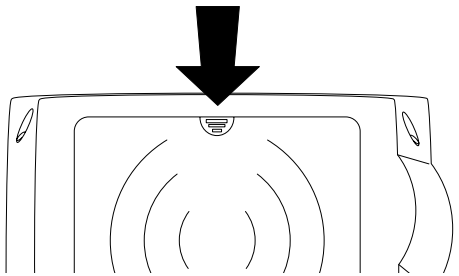
Installing the Batteries

Before you can set up any PowerTouch item, you need to install batteries.

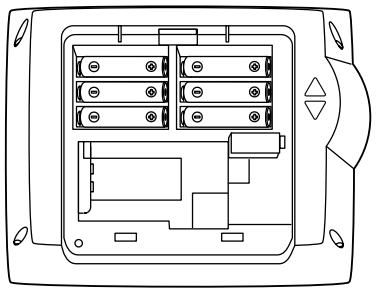
- The batteries that came with your new PowerTouch are intended for you to use for an operation check—they may not last as long as ordinary batteries. We recommend replacing them with alkaline batteries for normal use.

To install the batteries:

1. Press down and back on the battery cover to remove it.



2. Insert six AA (LR6) batteries as shown:



3. Close the cover.

If you use PowerTouch outside of it's range (see "How is PowerTouch Powered?" on page 5 of the *Users' Guide*) PowerTouch's display may show incorrect information.

When your batteries begin to run low, PowerTouch displays a Low Battery message. Clear the message by touching check mark icon (☑) and replace all batteries as described here.

Maximize the life of your batteries by turning the Backlight off if you are not trying to use PowerTouch in the dark. For more information on the Backlight, see page 73 of the *Users' Guide*.

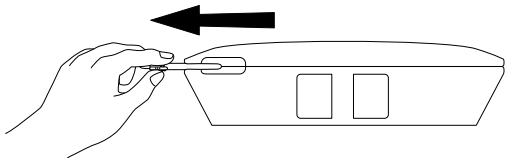
If you cannot see anything on the screen after replacing batteries, try to adjust the screen contrast. See 74 page of the *Users' Guide*.

(for U.K. only)

If you are installing the receiver in a home entertainment closet, a simpler installation option is to use the External Infrared Receiver. For more information, see "Connecting the External Infrared Receivers (for U.K. only)" on page 51.

Calibrating the Touch Screen

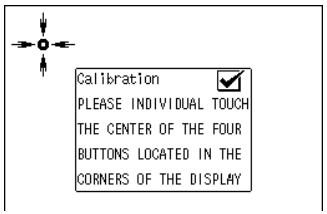
After you install the batteries or reset PowerTouch, you need to calibrate the touch screen. The touch screen responds to pressure from the included stylus or your finger:



If you are replacing batteries and complete the battery replacement within 3 minutes, you do not need to calibrate the screen; calibration is stored in memory.

If the screen's performance begins to change, you can recalibrate it without resetting PowerTouch by pressing Calib. on the Setup Preference menu. For more information about accessing this menu, see "Identifying Devices For PowerTouch Control" on page 40.

To calibrate the touch screen, use the stylus to touch the center of each of the calibration points displayed:



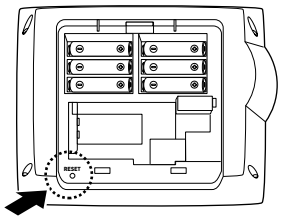
When you touch each calibration point, you should hear a beep and see the next point, indicating that area of the screen is now calibrated. If you do not hear a beep, touch the calibration point until you do.

The touch screen is sensitive to pressure, not to movement. Press firmly but gently on any touch screen element. The screen will not respond if you simply brush the stylus or your finger along the surface.

Resetting PowerTouch

If you want to reconfigure PowerTouch, you can reset it. You do not need to do this unless you experience a problem.

1. Open the cover.
2. Use the stylus to press the blue button at the bottom of the battery case:



The items you set up in this chapter will remain in PowerTouch. If you want to make it to the factory–set default condition, please follow the instructions on page 104 of the *Users' Guide*.

Selecting the Model Type

After "Calibrating the Touch Screen", the "Selecting the Model Type" display appears automatically (Except for U.K.).

The model type selection is performed to let the PowerTouch recognize the type of the receiver.

Once the model type is selected, it does not have to be selected again even after PowerTouch is reset.

To set the model type:

1. Press the receiver's **ON STANDBY** button to turn it **ON**.
2. Aim the PowerTouch towards the receiver and press the Type in the display.
3. The receiver automatically transmits its type code to PowerTouch. When the PowerTouch stores it, the model type selection is complete.

Now the new PowerTouch is available for operation.

- If the model type cannot be selected automatically because the receiver is not **ON**, etc., the model type can be selected manually. In this case, select the "Model 2" in step 2 above.

If you committed mistake in the model type selection, restart it as follows.

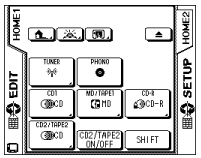
- While holding the **CONFIRM** and **VOLUME DOWN** buttons together, press and release the **RESET** button under the battery cover (see above diagram). Do not release the **CONFIRM** and **VOLUME DOWN** buttons until a short beep indicating the completion of setting is heard.

  After the above, all settings are reset to the factory settings.

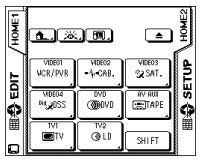
Navigating PowerTouch Interface

The PowerTouch has four basic menus as shown below:

HOME1

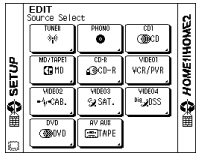


HOME2



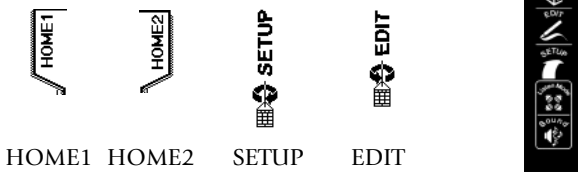
SETUP

EDIT



There are two ways for moving across these four basic menus:

- Touch character or icon "HOME1", "HOME2", "SETUP" or "EDIT" in the screen using a stylus or your finger.
- Touch the desired icon in the quick access menu on the left of the touch-screen.



HOME1 HOME2 SETUP EDIT

Quick Access menu

: Touch this to initiate the Customize mode (see page 43).

: Touch this to return to the normal operation mode from the Customize mode (see page 43).

For the rest of this chapter, you will be using the various settings on the Setup menu. The Setup menu includes the following settings and their subsettings:

- Preference, which contains the following:
  - IR ("Identifying Devices For PowerTouch Control" on page 40)

    This menu setting allows you to identify your connected devices to PowerTouch.
  - Input (See the KRF-X9995D Users' Guide).
  - Multi Zone ("Chapter Four: Setting Up Multiple Zones" on page 48).

    This menu setting allows you to activate dual-zone control, and to select which zone you want to control with PowerTouch.
  - Copy
    This menu will allow you to copy all the settings stored in your PowerTouch to a second PowerTouch. Instructions are included in separately sold PowerTouch package. (Only for some areas)
- Surround ("Setting Up Speakers" on page 37)

  These menu settings allow you to set up speakers and subwoofer, set the distance from your speakers to the listening area, determine speaker levels, and set the surround speaker type. The Next button on each screen takes you to the next group of settings (i.e., pressing Next at SP Selection takes you to SP Distance without having to go back to the menu).
- Macro (See the KRF-X9995D Users' Guide)
  This menu setting allows you to create custom macros that perform several operations (such as turning a device on, changing the receiver's input, and changing a TV station) with a single touch.
- Customize
  This menu setting allows you to configure your PowerTouch so that the screen buttons are easiest for use according to your liking.

  With this menu, you can change, copy, cut, paste and/or delete the names, positions and sizes of the buttons displayed on the screen.

To change the time until the screen goes out:

In order to reduce the battery consumption, the PowerTouch has been designed so that the screen goes out when there is no operation for a given time. This time can be changed.

1 Touch (SETUP) to call up the SETUP screen.

2 Touch Standby Time to call up the Standby Time setting screen.

3 Touch ◁ or ▷ to set the desired time. The time until the screen goes out can be changed to any value from 5 to 30 seconds.

4 Touch ☑ to return to the original screen.

Setting Up Speakers

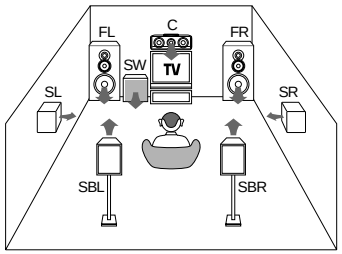
Before you can begin using the receiver to control your home entertainment system, you must set up PowerTouch to operate your speakers effectively. There are four areas of speaker setup:

- SP Selection
- SP Distance
- SP Level
- Bass Peak Level

You can set up your speakers in the order presented here (via the Next button) or individually, selecting each option from the Surround menu.

The receiver must be on, speakers must be connected, and Speaker A on the front panel must be turned on before you can set up speakers.

Speaker Placement
An example of installation is shown here.
Use this figure as a reference for installing the system according to the types of your speakers and conditions of your listening room.



FL/FR (Front speakers) : Place to the front left and right of the listening position. Front speakers are required for all surround modes.

C (Center speaker) : Place front and center. This speaker stabilizes the sound image and helps recreate sound motion.

SW (Subwoofer) : Reproduces powerful deep bass sounds.

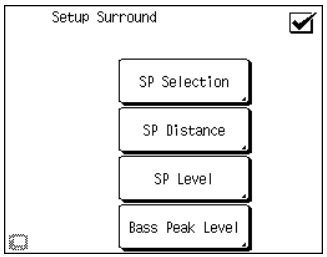
SL/SR (Surround speakers) : Place to the direct left and right, or slightly behind, the listening position at even heights, approximately 1 meter above the ears of the listeners.

SBL/SBR (Surround back speakers) : The SBL/SBR speakers are required to reproduce the 6.1-channel signals. Place them on the left and right behind the listening position and at a height slightly higher than the SL/SR speakers.

To begin setting up speakers:

1. Touch (SETUP) on the Quick Access menu to access the Setup menu:

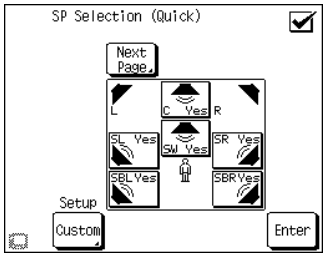
2. Touch [Surround] on the Setup settings.



SP Selection

1. Touch [SP Selection] on the Setup Surround menu to open the Speaker Selection menu.
2. Kenwood provides two ways to set up your speakers:

   Quick Setup: Use this method for a simplified setup where you identify whether a speaker is present and let the receiver automatically determine the appropriate speaker settings.



① Aim PowerTouch at the receiver. If the speaker is present, touch the speaker button until "Yes" appears in the button. (SW=subwoofer, C=center, SL=surround left, SR=surround right, SBL=surround back left and SBR=surround back right)

If you selected Yes for the subwoofer, all of the bass below 80Hz is removed from other speakers in your system and is sent to the subwoofer in all listening modes. This improves your speakers' power handling and reduces overall distortion.

② Touch [Enter] to save your settings.

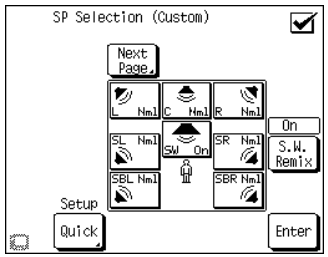
③ Touch [Next Page] to move to the next speaker setting or touch ☑ to return to the Setup Surround menu.

Speaker combinations that can be selected with Quick Setup

Subwoofer	Center speaker	Surround speakers	Surround back speakers
Yes →	Yes →	Yes →	Yes
			No
No	No →	No →	No

Custom setup: Use this method for a more customized setup where you determine more of the speaker settings, such as the bandwidth of the sound sent to each speaker. Custom setup configures the following: SW=subwoofer, L=front left, R=front right, C=center, SL=surround left, SR=surround right, SBL=surround back left and SBR=surround back right.

① Touch [Custom] on the Speaker Selection menu:



② Aim PowerTouch at the receiver and touch the speaker button until the correct setting appears (see below).

The front left and right buttons, the surround left and right buttons and the surround back left and right buttons are linked; if you touch one, you change the settings for both.

- **Off** means you are not using the speaker. (Not available for front speakers). If no subwoofer is connected, all bass below 80Hz is sent to front left and right speakers.
- **On** means that you are using the speaker. (Only available for subwoofer).
- Select **Nml** (= Normal/THX) if the speaker is not capable of producing clean, deep bass energy at output levels that match those produced by a typical powered subwoofer. All bass below 80Hz in that channel is removed from that speaker and is sent to the subwoofer (or sent to the front speakers if subwoofer is set to off) in all listening modes. Most speakers should be considered **Nml**. If no subwoofer is connected, that signal is sent to front left and right speakers.

If you have THX certified speakers, select the Nml setting.

- Select **Lrg** (= Large) if the speaker is capable of producing clean, deep bass energy at output levels that match those produced by a typical powered subwoofer. All bass below 80Hz in that channel is left in that speaker in all listening modes.

The subwoofer may not output audio depending on the setups of the input signal, speakers and listen mode.

③ If you set your left and right front speakers to **Lrg** and want to send bass to the subwoofer in all Listen modes, touch [S.W. Remix] until "On" appears above the button. **SW Re-Mix** mixes some of the bass components in the signals for all the speakers and output it to the subwoofer.

The **SW Re-Mix ON/OFF** is defeated when you set your front speakers to **Nml**.

④ Touch [Enter] to save your settings.

⑤ Touch [Next Page] to move to the next speaker setting or touch ☑ to return to the Setup Surround menu.

When activating the THX operation, it is recommended to set **SW Re-Mix OFF** so that the THX operation can match correctly the human sense of audition.

Speaker combinations that can be selected with Custom Setup

Subwoofer	Front speakers	Center speaker	Surround speakers	Surround back speakers
On	Nml	Nml	Nml	Nml
				Off
		Off	Off	Off
	Lrg	Nml	Nml	Nml
				Lrg
				Off
		Lrg	Off	Off
Off	Lrg	Nml	Nml	Nml
				Lrg
				Off
		Lrg	Off	Off
		Nml	Nml	Nml
				Lrg
				Off
		Lrg	Off	Off

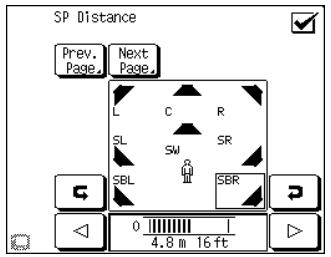
Nml : Normal/THX Lrg : Large Off : Do not use.

SP Distance

1. Measure the distance from each speaker to the seat you most often use and note it below:

Speaker	Distance (ft or m)
Front left	
Center	
Front right	
Surround right	
Surround back right	
Surround back left	
Surround left	
Subwoofer	

2. If you are not already there, touch [SP Distance] on the Setup Surround menu to open the Speaker Distance menu:



3. Touch ◁ or ▷ to set the distance for the front left speaker.
4. Touch ⮌ or ⮎ to select the next speaker.
5. Repeat steps 3 and 4 for each speaker.
6. Touch [Next Page] to move to the next speaker setting or touch ☑ to return to the Setup Surround menu.

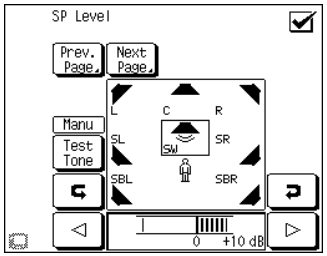
SP Level

In this step you will use your ears to balance the volume level of all the system's speakers except the subwoofer for your room and listening position. (To set the subwoofer level, see "Setting the Subwoofer Level" on this page.) When all the speakers are set at the same volume level, your system will create a more realistic, spacious surround sound environment.

It is recommended to use a SPL meter to adjust the speaker levels accurately. (See "To obtain accurate output levels" on this page)

When setting the speaker levels, be careful against the high-level test tone that is produced.

1. Eliminate as many external noise sources as possible.
2. Sit in the place where you and your guests are most likely to sit while watching movies or listening to music.
3. If you are not already there, touch [SP Level] on the Setup Surround menu to open the Speaker Level menu:



4. Touch [Test Tone] until the Test Tone display reads "Manu".
5. Test noise will play from the front left speaker. Carefully listen to the volume level of the noise.
6. Touch [⊆] or [⊇] to select the next speaker.
7. Carefully listen to the volume level of the test noise. If the noise is a different volume than the noise from the front left speaker, use [◁] or [▷] to adjust the volume so that the volume matches the volume from the front left speaker.

   (Do not be concerned with the volume number readout on the Level display—this is for reference purposes only. Use your ears to determine if the two speakers are playing at the same volume).
8. Repeat steps 6 and 7 until all the system's speakers (except the subwoofer) play at the same volume.
9. To confirm the volume levels, touch [Test Tone] until the Test Tone display reads "Auto". The test noise will automatically cycle between all of the speakers. Fine-tune the channel levels as necessary.
10. When all the channels sound like they're the same volume, you've balanced your system.
11. To turn off the test noise, touch [Test Tone] until the Test Tone display reads "Off".

    Setting the Subwoofer Level: Because of the way humans hear, the test noise the Speaker Level menu sends through the subwoofer will not sound as loud as it really is. (The Speaker Level menu subwoofer test noise is designed to be used with a sound pressure level meter for balancing.)

    Because of this, you cannot use that test noise to properly calibrate the level of your subwoofer by ear. To set the subwoofer level, listen to familiar music or films that have strong bass content and adjust the subwoofer level until it sounds balanced with the rest of the speakers.
12. Touch [Next Page] to move to the next speaker setting or touch ☑ to return to the Setup Surround menu.

To obtain accurate output levels

To obtain accurate output levels, it is recommended to use a handheld Sound Pressure Level (SPL) meter. Readings should be taken from your actual listening position and adjust the level of each speaker to 75 dB SPL (C-weighted/slow meter mode).

Bass Peak Level

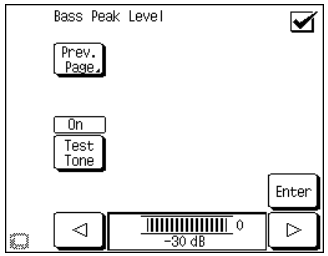
In this step, you set the maximum volume of the bass sound so that the speaker sounds are not distorted even when excessively-large bass signal is input. When playback is performed hereafter, the bass sound is regulated automatically so as not to exceed the level set here.

1. Touch [Bass Peak Level] on the Setup Surround setting menu.

   Or touch [Next Page] on the Speaker Level menu.
2. Touch [Test Tone] on the Bass Peak Level setting menu.

   The test tone is output. (displayed "-30 dB")

   The level of the test tone is not affected by the current setting of the volume control.



3. Touch the [◁] or [▷] to adjust the speaker level at a level just before the audio starts to be distorted.
4. Touch the [Enter] to complete the setting.
5. Touch the ☑ to return to the Setup Surround menu.

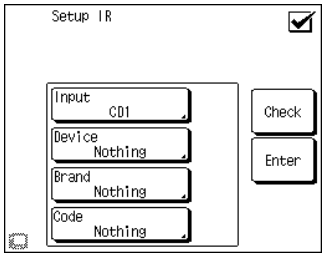
Do not output the test tone for a long period while the speaker audio is distorted.

Identifying Devices For PowerTouch Control

Once your speakers are set up and configured, you must identify your component devices to PowerTouch. PowerTouch can be set up to control any device: if the device code is not already part of PowerTouch's extensive library, you can use the Learn feature to teach the device's commands to PowerTouch. You can also use this Learn function to expand the control capabilities of existing codes. For more information, see "To Customize the PowerTouch Screen" on page 43.

How Do I Identify Devices?

1. Make sure you have installed batteries and chosen a model type.
2. Touch (SETUP) on the Quick Access menu to access the Setup menu.
3. Touch [IR] on the Setup menu to access the IR Setup menu:



4. Refer to "Noting Your Devices" on page 3 where you noted which device was connected to which jack set.
5. Touch [Input CD1] to open the list of available jack sets:
   - **CD1**
   - **CD2/TAPE2**
   - **MD/TAPE1**
   - **CD-R**
   - **VIDEO1** through **VIDEO4**
   - **DVD**
   - **AV AUX**
   - **TV1** and **TV2** (these allow PowerTouch to control your TV or cable tuner, even if it isn't connected to one of the receiver's input jack sets).

   Touch the jack name on the list.
6. Touch [Device Nothing] to select the type of device you have connected to the jack set.
7. Touch [Brand Nothing] to select the device's brand.
8. Touch [Code Nothing]. You can now choose from a list of all the codes available for the device. Touch the first code on the list.
   - If the devices are connected with a system control cable, be sure to select the code preceded by "Sys-" or "System". This instructs PowerTouch to send all commands for the device to the receiver, which will control the device via the system control cable.
   - If you have a Kenwood Dual-Play 200-Disc CD Changer, you will need to set both CD1 and CD2/TAPE2 to the correct code for this device ("Sys-Mega").
9. Touch [Check]. This instructs PowerTouch to send a "power" test signal to the device. If your device turns on, the code you entered was correct. If it does not turn on, try the next code in the list. Continue until one of the codes works. If none of the codes work, see "To Customize the PowerTouch Screen" on page 43.

   If you enter the code preceded by "Sys-" or "System" on step 8, skip this step.
10. When you have a code that works, touch [Enter]. Check off that device on your list.

Repeat steps 5 through 10 until you are finished identifying devices to PowerTouch. When you are done, turn to "How Do I Operate Devices?" on page 35 of the *Users' Guide* and note which icon corresponds to which connected device.

How Do I Replace a Setup Code with a New One?

If you purchase a new device to replace an existing device, you will need to identify the new device to PowerTouch. To do so:

1. Connect the device as described in the appropriate section of Chapter One of this manual.
2. Follow the steps under "How Do I Identify Devices?" on this page. When you touch, it will replace the other code.

How Do I Delete Setup Codes?

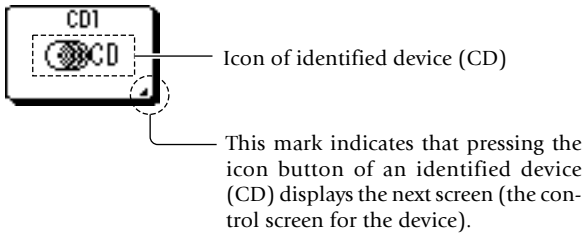
If you disconnect a device and do not plan to replace it, you may want to delete the setup code from PowerTouch. To do so:

1. Follow the steps under "How Do I Identify Devices?" on this page to select a jack set.
2. Touch [Input CD1]. Scroll to the device "Nothing" then touch it. That device is no longer controlled by PowerTouch.

Example of Input button display

When a device is identified, its icon will be displayed among the Input buttons. The TUNER and PHONO icons are displayed by default.

Example with the CD1 device button:


CD1
CD
Icon of identified device (CD)
This mark indicates that pressing the icon button of an identified device (CD) displays the next screen (the control screen for the device).

Storing Radio Stations in Memory (optional)

Your new PowerTouch provides two ways to store radio stations:

- Manual Memory, which allows you to enter and store specific stations.
- RDS Automatic Memory (for U.K. only), which searches for stations broadcasting an RDS signal and automatically stores them in the first available storage button.

NOTES

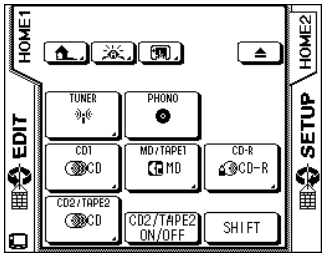
There are 40 preset storage buttons available.

If you have a KRF-X9995D for U.K., search for and store RDS stations first, then set stations manually. The search function automatically assigns RDS stations to the first storage button, overwriting any stations already stored there.

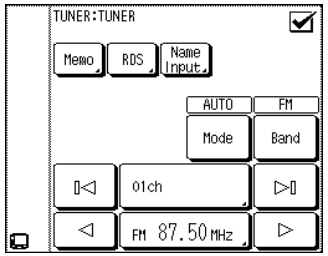
You can overwrite RDS stations with manually stored stations.

Storing RDS Stations Automatically (for U.K. only)

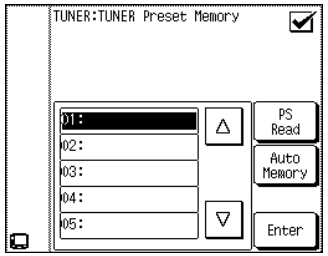
1. Touch (HOME1) on the Quick Access menu to access the HOME1 menu:



2. Touch [TUNER] on the HOME1 menu to access the Tuner controls:



3. Touch [Band] to choose FM.
4. Touch [Memo].



5. Touch [Auto Memory]. The receiver locates and stores any FM stations broadcasting an RDS signal. This process can take a few minutes to complete; please be patient. While the receiver is searching, "AUTO MEMORY" display blinks.

NOTES

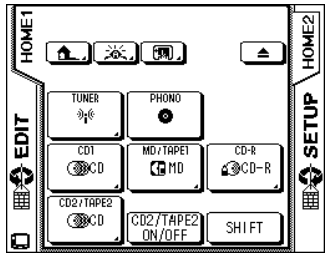
RDS stations are stored in the order they are found, up to 40 stations. If the search finds fewer than 40 stations, the receiver may automatically store other FM stations in the open storage buttons.

If you are repeating the RDS search, any existing preset stations (whether automatically or manually stored) will be replaced by the results of the new search.

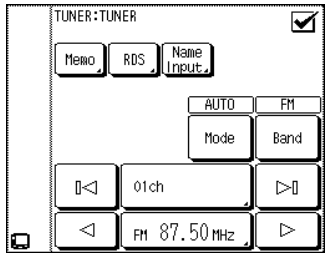
Storing RDS Station Name (PS Read) (for U.K. only)

- To execute PS Read, it is required to finish the auto memory operation in advance.

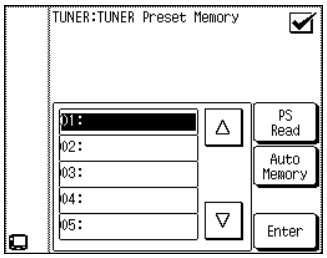
1. Touch (HOME1) on the Quick Access menu to access the HOME1 menu:



2. Touch [TUNER] on the HOME1 menu to access the Tuner controls:



3. Touch [Memo].

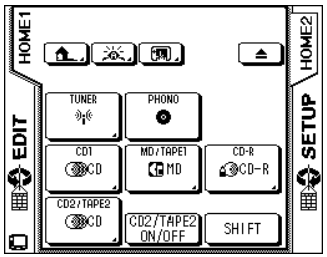


4. Touch [PS Read].
5. Confirm the station name list and touch [Enter] if it is OK. If you do not want to finalize, touch ☑ to return to the previous screen.

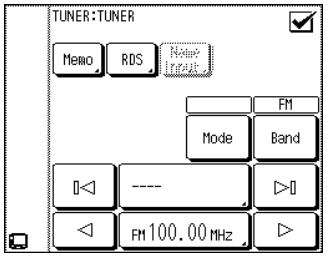
The station name are written in the preset channel list.

Storing Stations Manually

1. Touch (HOME1) on the Quick Access menu to access the HOME1 menu:

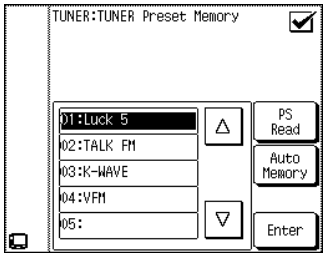


2. Touch [TUNER] on the HOME1 menu to access the Tuner controls:



3. Touch [Band] to choose the receiving band.
4. Touch [Mode] to switch between Auto tuning and Manual tuning. Select Manual if you experience interference due to weak radio signals.
5. Choose the station you want to store using one of the following methods:
   - Touch [◁] or [▷] until the station's broadcast frequency appears.
   - Touch [FM 100.00 MHz] and enter the broadcast frequency using the 10key pad. (e.g.; To select FM 87.5 MHz, enter 8, 7, 5, 0, and [Enter])

   Touch ☑ (check icon) to return to the TUNER control menu.
6. Touch [Memo].

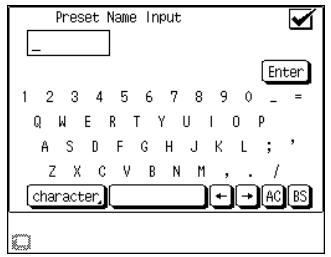


7. Touch a storage button. Use [△] or [▽] to access more storage buttons.

   If you choose a storage button that already has a station assigned, the new station will replace the previously-stored station.
8. Touch [Enter] to tune to the newly saved station and return to the Tuner controls.
9. Repeat steps 3 through 8 for each station you want to store.

Name input of the preset station.

Touch [Name Input] to enter a name for the station in the TUNER menu:



- Use the stylus to select characters from the keyboard.
- Touch [character] to access other characters.
- Touch [ ] to insert a space.
- Touch [←] or [→] to move back and forth between the characters.
- Touch [BS] (backspace) to clear the last character you entered. Touch [AC] (all clear) to delete all the characters in the line.
- Touch [Enter] to save your title.

To Customize the PowerTouch Screen

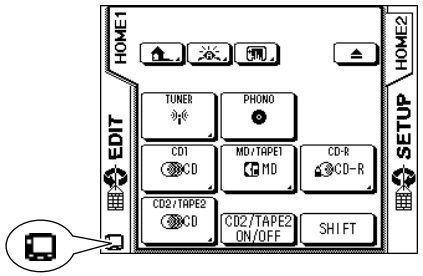
The configuration of the items in the PowerTouch screen such as the buttons can be customized so that they are easy to use according to your liking.

1. Name ( ) : The name of the selected item can be changed.
2. Size ( ) : The size of the selected item can be changed.
3. Move ( ) : The selected item can be moved.
4. Cut ( ) : The selected item can be cut. The cut item can be pasted in another position.
5. Copy ( ) : The selected item can be copied and pasted in another position.
6. Paste ( ) : The cut or copied item can be pasted in the specified position.
7. Delete ( ) : The selected item can be deleted.
8. Learn ( ) : A function can be programmed in an item on the touch panel or in a hardware key.
9. Gallery ( ) : An item stored in a gallery can be pasted in a desired position.
10. Jump ( ) : When the jump mode is activated during customization, the buttons which are capable of switching the screen can be used for their original functions.

    For example, if you touch the icon to activate the jump mode during customization, the TUNER button becomes the button for jumping to the TUNER screen.
11. Default ( ) : The screen configuration can be reset to the default.
12. Undo ( ): Returns a customized operation to the condition before customization.

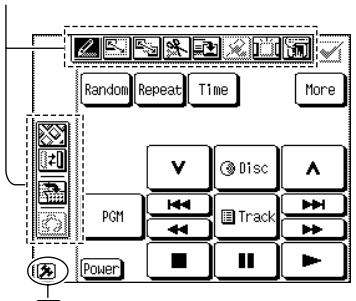
Changing the Name

1. Touch the icon in the menu you want to customize. (The customization cannot be initiated in screens where the icon is grayed out.)



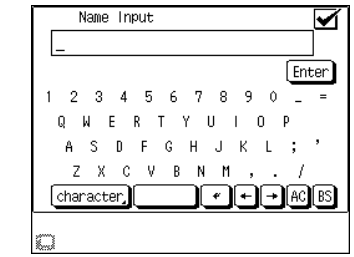
2. Customization icons are displayed, with the icon highlighted to indicate the Name mode. If the icon is not highlighted, touch it so that it is highlighted.

Customization icons



Touch this icon to exit from customization and return to the normal mode.

3. Touch the item you want to rename. The keyboard screen will appear.



The character entry space on the upper part of the keyboard shows the name currently given to the icon. To change the name, delete it with the BS (backspace) button and enter a new name.

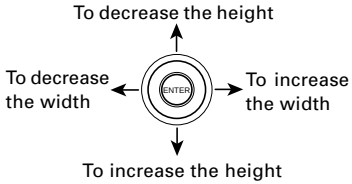
Touch the character displays other characters. For details on the keyboard operation, see page 8 of the *User's Guide*.

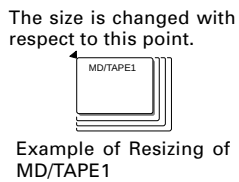
4. Touch the Enter to enter the name.
5. To continue customization, touch another item then proceed to the next operation.

   Touch the icon to exit from customization.

Changing the Item Size

1. Touch the icon in the menu you want to customize. (The customization cannot be initiated in screens where the icon is grayed out.)
2. When the customization icons are displayed, touch the icon so that it is highlighted (Size mode).
3. Touch the item you want to resize. The selected item will blink.
4. Change the item size using the joystick.

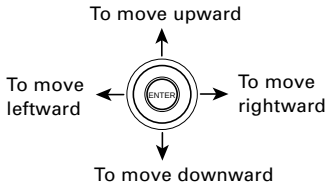




Example of Resizing of MD/TAPE1

Moving an Item

1. Touch the icon in the menu you want to customize. (The customization cannot be initiated in screens where the icon is grayed out.)
2. When the customization icons are displayed, touch the icon so that it is highlighted (Move mode).
3. Touch the item you want to move. The selected item will blink.



An item cannot be moved in a position where it is overlapped with another item or outside the customizable area.

4. To continue customization, touch another item then proceed to the next operation.

   Touch the icon to exit from customization.

Cutting an Item

1. Touch the icon in the menu you want to customize. (The customization cannot be initiated in screens where the icon is grayed out.)
2. When the customization icons are displayed, touch the icon so that it is highlighted (Cut mode).
3. Touch the item you want to cut. The selected item will be cut now.

   The cut item can be pasted in another position by using the Paste function.

Copying an Item

1. Touch the icon in the menu you want to customize. (The customization cannot be initiated in screens where the icon is grayed out.)
2. When the customization icons are displayed, touch the icon so that it is highlighted (Copy mode).
3. Touch the item you want to copy. The selected item will be copied into memory.
4. Paste the copied item in the desired position by using the Paste function.

   The copied item cannot be pasted in a position where it is overlapped with another item or outside the customizable area.

Pasting an Item

1. Cut or copy the desired item.
2. When the customization icons are displayed, touch the icon so that it is highlighted (Paste mode).
3. Paste the copied item in the desired position by using the Paste function.

   The copied item cannot be pasted in a position where it is overlapped with another item or outside the customizable area.

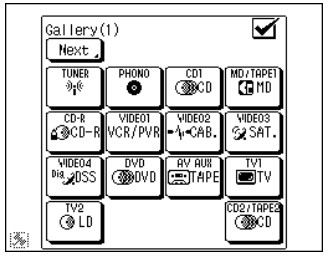
Deleting an Item

1. Touch the icon in the menu you want to customize. (The customization cannot be initiated in screens where the icon is grayed out.)
2. When the customization icons are displayed, touch the icon so that it is highlighted (Delete mode).
3. Touch the item you want to delete. The selected item will be deleted now.

Selecting an Item in the Gallery and Pasting it in the Screen

1. Touch the icon in the menu you want to customize. (The customization cannot be initiated in screens where the icon is grayed out.)
2. When the customization icons are displayed, touch the icon.

   Press the Next to view another gallery display.

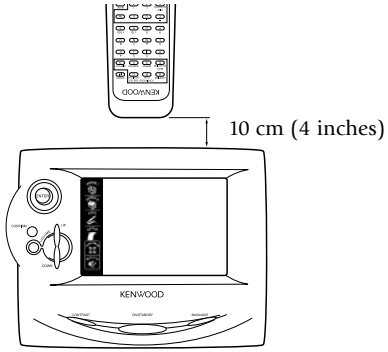


3. Touch the item you want to copy. The previous menu is displayed.
4. Touch the desired position to paste the selected item there. The selected item cannot be pasted in a position where it is overlapped with another item or outside the customizable area. If the item you select is a selector item (input selector button such as "Tuner" or "CD"), it can be pasted only in the HOME1 or HOME2 screen.
5. If required, program the desired function in the button by using the Learn function.

Programming a Function in a Button (Learn)

1. Touch the icon in the menu you want to customize. (The customization cannot be initiated in screens where the icon is grayed out.)
2. When the customization icons are displayed, touch the icon so that it is highlighted (Learn mode).
3. Select the item in which you want to program the desired function. The buttons which can learn functions are not only those displayed on the screen but also include the **Mute** button, **Volume up/down** buttons, **On/Standby** button and **Joystick**. However, at the menu screen of HOME1 and HOME2, the **Mute** button, the **Volume up/down** buttons, and the **On/Standby** button can not learn any functions.
4. Aim the device's remote at PowerTouch and press and hold the button on the device's remote that corresponds to the command you want PowerTouch to learn:

   This may take a few seconds; **do not** move PowerTouch or the device's remote until PowerTouch displays the Function Change menu again.



- "Complete" is displayed when learning completes successfully.
- "Error" is displayed when it failed.

Be sure to use the device's original remote. PowerTouch will not learn commands from other universal remotes.

NOTES

Depending on the remote control unit, "Learn" may not be possible.

Resetting to Default

1. Touch the icon in the menu you want to customize. (The customization cannot be initiated in screens where the icon is grayed out.)
2. When the customization icons are displayed, touch the icon. The screen configuration reset to the default.

Switching the Customized Screen to another (Jump)

When the jump mode is activated during customization, the buttons which are capable of switching the screen can be used for their original functions.

1. Touch the icon during customization.

   The icon is highlighted to indicate the Jump mode.

   In the Jump mode, the buttons which are capable of switching the screen (such as "Tuner" and "CD") can be used for their original functions.
2. Touch the icon again to return to customization.

To Undo the Last Operation performed

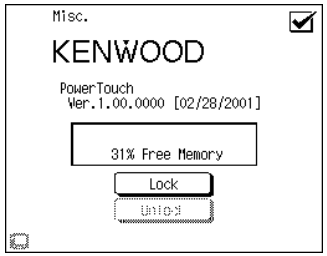
Touch the icon immediately after performing the operation that you want to undo. The operation will be canceled (undo).

Locking Customization Results with a Password

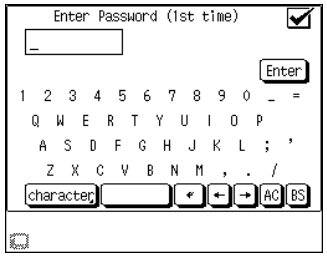
Customization by other persons than you can be protected by setting a password.

To lock customization:

1. Touch (SETUP) on the Quick Access menu to access the Setup menu.
2. Touch [Misc.].



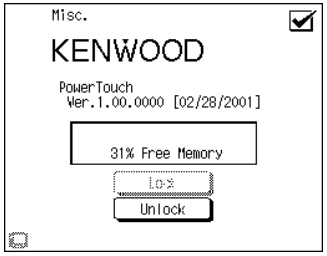
3. Touch [Lock].



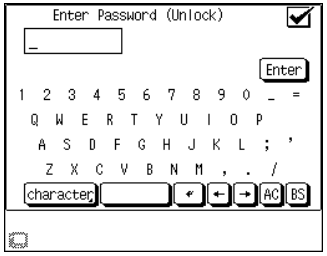
4. Enter a password and touch the [Enter].
5. When the Enter Password screen is displayed for the second time, enter the same password as step 4 again and touch the [Enter].
6. Touch to return to the original screen.

To unlock customization:

1. Touch (SETUP) on the Quick Access menu to access the Setup menu.
2. Touch [Misc.].



3. Touch [Unlock].



4. Enter a password and touch the [Enter].
   The customization will be unlocked.
5. Touch to return to the original screen.

Chapter Tree: Setting Up on the Receiver

It is possible to set up the speakers on the receiver main unit.

However, some of the setting items such as the controlled device registration should be set on the PowerTouch. If setup is made on the PowerTouch, it is not necessary to repeat any setup on the receiver side.

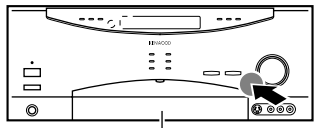
Therefore, it is recommended to perform setup on the PowerTouch. This chapter describes the setup on the receiver only as an alternative method in case the setup is not made on the PowerTouch.

Do not operate the PowerTouch during the receiver setup.

Preparation for setup

Most of the receiver control buttons are accommodated inside the panel door. Make the following preparation for setup on the receiver.

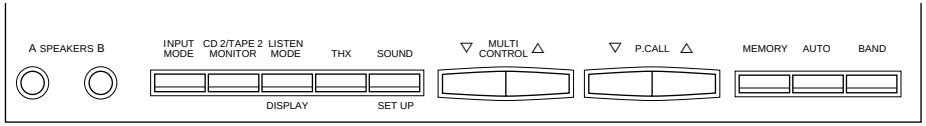
1. Plug the power cord into a household power outlet.
2. Press the POWER switch to supply the main power. The receiver now enters the STANDBY mode (in which remote control is available). Then press the **ON/STANDBY** button to turn the receiver **ON**.
3. Open the panel door.



Press the **DOOR OPEN/CLOSE** button to open the panel door. To close it, press the button again.

Panel door

Button layout



Speaker Setup

1. Selecting the speakers

Selecting the **SUBWOOFER**:

① Press the **SET UP** button (**SOUND** button) inside the panel door until "SUBWOOFER OFF (or ON)" message appears on the display (for more than 2 seconds).

② Press the **MULTI CONTROL** (▽/△) button to select **ON** (when a subwoofer is used) or **OFF** (when not).

Selecting the **FRONT** speakers:

③ Press the **SET UP** button to display "FRONT NML/THX (or FRONT LARGE)".

④ Press the **MULTI CONTROL** (▽/△) button to select **FRONT LARGE** (large-sized speakers) or **NML/THX** (normal-sized speakers).

If the **SUBWOOFER** is set to **OFF**, the **FRONT** speakers are set automatically to LARGE and the **CENTER** speaker selection display appears automatically.

Selecting the **CENTER** speaker:

⑤ Press the **SET UP** button to display "CENTER NML/THX (or LARGE or OFF)".

⑥ Press the **MULTI CONTROL** (▽/△) button to select **CENTER LARGE** (large-sized speaker), **NML/THX** (normal-sized speaker) or **OFF** (no center speaker).

If the **FRONT** is set to **NML/THX**, the **CENTER** speaker can be set to only either **NML/THX** or **OFF**.

Selecting the **SURROUND** speakers:

⑦ Press the **SET UP** button to display "SURR NML/THX (or LARGE or OFF)".

⑧ Press the **MULTI CONTROL** (▽/△) button to select **SURR LARGE** (large-sized speakers), **NML/THX** (normal-sized speakers) or **OFF** (no surround speaker).

When the **FRONT** is set to **NML/THX**, the **SURROUND** speakers can be set to only either **NML/THX** or **OFF**.

When **SURROUND OFF** is selected, **SURROUND BACK** is set automatically to **OFF** and the **SW Re-Mix** setting menu is displayed.

If the **SUBWOOFER** is set to **OFF**, selecting **SW RE-MIX** step will be skipped.

Selecting the **SURROUND BACK** speakers:

⑨ Press the **SET UP** button to display "S.BACK NML/THX (or LARGE or OFF)".

⑩ Press the **MULTI CONTROL** (▽/△) button to select **S. BACK LARGE** (large-sized speakers), **NML/THX** (normal-sized or THX speakers) or **OFF** (no surround speaker).

When the **FRONT** is set to **NML/THX**, the **SURROUND BACK** speakers can be set to only either **NML/THX** or **OFF**.

Selecting **SW RE-MIX**:

⑪ Press the **SET UP** button to display "SW-REMIX OFF (or ON)". If the **SUBWOOFER** is set to **OFF**, selecting SW RE-MIX step will be skipped.

⑫ Press the **MULTI CONTROL** (▽/△) button to select **ON** or **OFF**.

⑬ Press the **SET UP** button to proceed to "Adjusting the speaker volumes" below. To exit from setting, press the **SET UP** button repeatedly until "SETUP FIXED" is displayed.

For details on the **SW RE-MIX** and the selection of speakers, please see page 38.

2. Adjusting the speaker volumes

Adjust the volume balance between the speakers in the system by actually listening to them. See page 39 for details.

① Minimize external noise in the listening room.

② Position yourself in a place where you usually listen to music or view video.

③ Perform operation in step ⑬ of procedure 1 above.

"TEST TONE OFF" is displayed.

④ Press the **MULTI CONTROL** (▽/△) button to select **ON**, then press the **SET UP** button.

When setting the speaker levels, be careful against the high-level test tone that is produced.

The speaker volume adjustment display appears and test noise is generated from the front left speaker ("L 0 dB" displayed). Listen to the volume of the noise carefully.

⑤ When the test noise moves to the center speaker and "C 0 dB" is displayed, adjust the volume to the same level as the front left speaker by pressing the **MULTI CONTROL** (▽/△) button.

⑥ Similarly, adjust the volumes of the "R" (front right), "SR" (surround right), "SBR" (surround back right), "SBL" (surround back left) and "SL" (surround left) speakers.

Do not adjust the "SW" (Subwoofer) volume using the test noise. It should be adjusted while listening to ordinary music.

⑦ Press the **SET UP** button to display "BASS PEAK OFF"

⑧ Press the **MULTI CONTROL** (▽ or △) button, then displayed "-30 dB".

The test noise is output. Press the **MULTI CONTROL** (▽/△) button to set its level to a level just before the speaker sound starts to be distorted.

⑨ Press the **SET UP** button to proceed to "Setting the speaker distances" below. To exit from setting press the **SET UP** button repeatedly until "SETUP FIXED" is displayed.

3. Setting the speaker distances

Measure the distance between each speaker and the listening position you frequently use. See page 38 for details.

① After the operation of ⑨ in procedure 2 above, the speaker distance setting display appears.

② When "L 3.0m/10ft" is displayed, correct the distance of the front left speaker from you using the **MULTI CONTROL** (▽/△) button.

③ Press **SET UP** button to display "C 3.0m/10ft" and correct the distance of the center speaker from you using the **MULTI CONTROL** (▽/△) button.

④ Similarly, set the distances of the "R" (front right), "SR" (surround right), "SBR" (surround back right), "SBL" (surround back left), "SL" (surround left) and "SW" (Subwoofer) speakers.

⑤ Press the **SET UP** button repeatedly until "SETUP FIXED" is displayed.

Storing Radio Stations in Memory (optional)

Radio stations can be preset in the memory in the receiver and recalled by a one-touch operation.

The memory in the receiver cannot store the station names. To store the station names, use the PowerTouch. (For details, see "Storing Radio Stations in Memory (optional)" on page 41.)

Storing RDS Stations Automatically (for U.K. only):

1. Press the **INPUT SELECTOR** (◅ or ▻) button to select the Tuner input.
2. Press the **BAND** button to select the FM band.
3. Press and hold the **MEMORY** button for more than 2 seconds. The receiver locates and stores any FM stations broadcasting an RDS signal. This process can take a few minutes to complete; please be patient. While the receiver is searching, "AUTO MEMORY" display blinks.

Storing Stations Manually:

1. Press the **INPUT SELECTOR** (◅ or ▻) button to select the Tuner input.
2. Press the **BAND** button to choose the receiving band.
3. Press the **AUTO** button to select **AUTO TUNING** or **MANUAL TUNING**.
4. Press the **MULTI CONTROL** (▽/△) button to tune the station you want to store.
5. Press the **MEMORY** button.
6. Press the **P.CALL** (▽/△) button to display the desired preset number.
7. Press the **MEMORY** button again to complete the presetting.
8. To preset other stations, repeat steps 2 to 7 for each station you want to store.

Chapter Four: Setting Up Multiple Zones

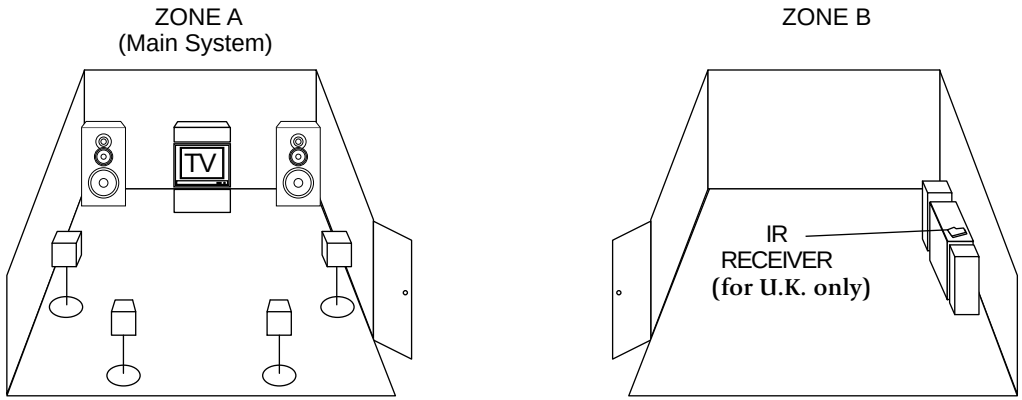
The KRF-X9995D offers dual-zone output and control, which enables you to use a single receiver to control devices and speakers for two zones (rooms). Due to its advanced features and controls, you can play music in one zone while watching a movie in the other!

Depending on your tastes and budget, you can set up one of the following "sound scenarios" to make full use of the Receiver's capabilities:

No additional amplifier for Zone B: You can use the Receiver's Speaker B output for Zone B. This allows you to listen to full surround sound in Zone A only, or in stereo in Zone A when Zone B is active. The sound in Zone B will always be in stereo.

Stereo amplifier for Zone B: You can use an additional stereo amplifier for Zone B (connected to the Receiver's Zone B Preouts). This allows you to listen to full surround sound in Zone A even if you are also listening in Zone B. The sound in Zone B will always be in stereo.

Multiple zones require you to run wires and cabling from the primary zone (Zone A) where your Receiver is installed to another zone (Zone B) where an IR Receiver (for U.K. only), a second set of speakers, and possibly a second TV/Monitor is installed:



This chapter discusses some of the connection configurations and additional PowerTouch setup necessary if you want to take full advantage of the Receiver's multiple-zone capabilities. It contains the following sections:

Making Connections page 49
Setting Up PowerTouch page 50

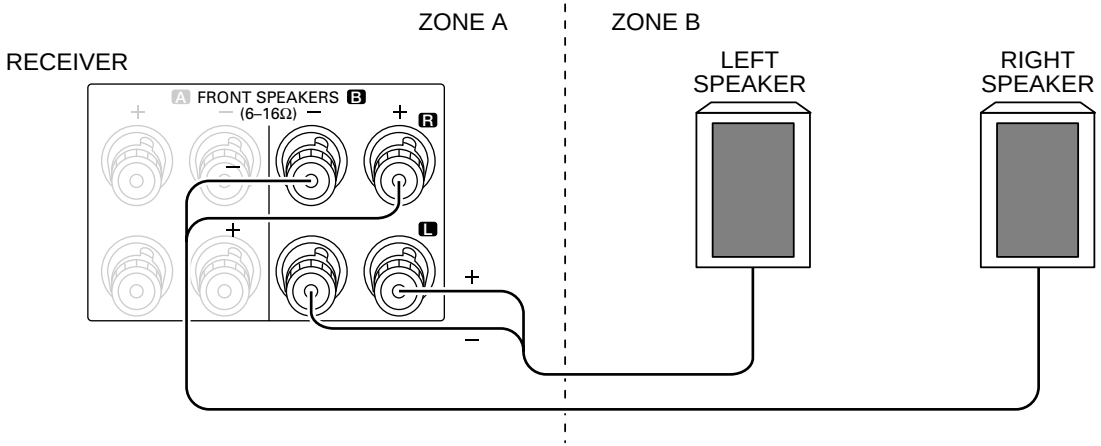
For U.K. only:
To control the receiver from Zone B by making full use of the bi-directional communication function of PowerTouch, it is required to use an IR receiver (see "Connecting the External Infrared Receivers" on page 51).

Kenwood recommends hiring a competent installer to make multiple-zone connections and setup.

Making Connections

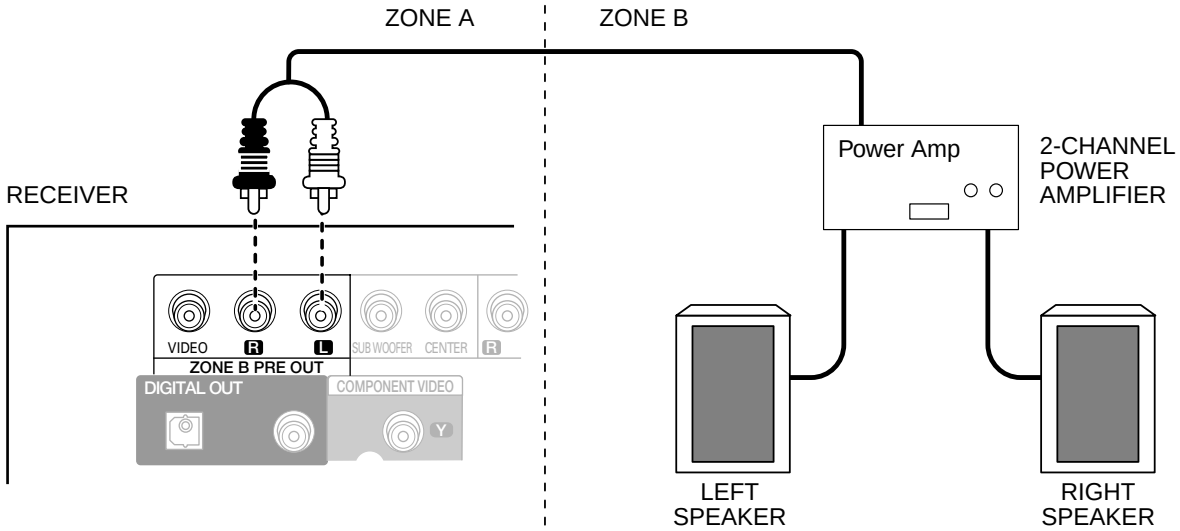
This section describes how to connect speakers in the two zones to support the different scenarios. Before you read this section, Kenwood recommends reading "Connecting Your Speakers" on page 4 of this manual. In addition, this section discusses how to connect a second TV/Monitor and how to connect an IR Receiver, IR Repeaters, Relays, and a TV On/Off Sensor (for use with Perfect Macro).

Scenario 1: Surround Sound in Zone A only/Stereo in Zone A and Stereo in Zone B (Using the Receiver's Speaker B Outputs)



The five amplifiers built into the receiver meet your sound needs for both zones. The built-in amplifiers allow you to listen to full surround sound if you are listening in Zone A only, or stereo in Zone A if both zones are active. You will always hear stereo in Zone B. Make the speaker connections as shown in the illustration under "To Connect Front and Surround Sound Speakers:" on page 5, being sure to also connect the Zone B speakers to the **SPEAKER B** binding post.

Scenario 2: Surround Sound in Zone A and Stereo in Zone B (Using a Stereo Amplifier in Zone B)



You use an additional stereo amplifier for Zone B. This allows you to listen to full surround sound in Zone A even if both zones are active. You will always hear stereo in Zone B. Make the speaker and amplifier connections as shown in the illustration.

Both Scenarios: Connecting a Second TV/Monitor

If you plan to watch movies, or any other visual entertainment activity in Zone B, you must connect an additional TV/Monitor. To do so, connect a standard composite video cable from the Zone B TV to the ZONE B PRE OUT VIDEO jack.

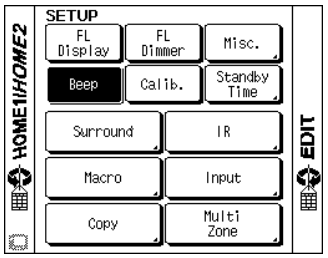
The above is possible only when the composite signals are input.

Setting Up the PowerTouch

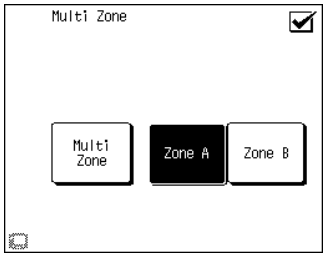
You can operate equipment from two different zones using your Kenwood PowerTouch. To do so:

1. Make sure you have identified all the connected devices to your PowerTouch. For more information on identifying devices, see "Identifying Devices For PowerTouch Control" on page 40 of this manual.

2. Touch the (SETUP) on the Quick Access menu to access the Setup menu:



3. Touch [Multi Zone] to access multi-zone commands:



4. Touch the [Multi Zone] to highlight it.

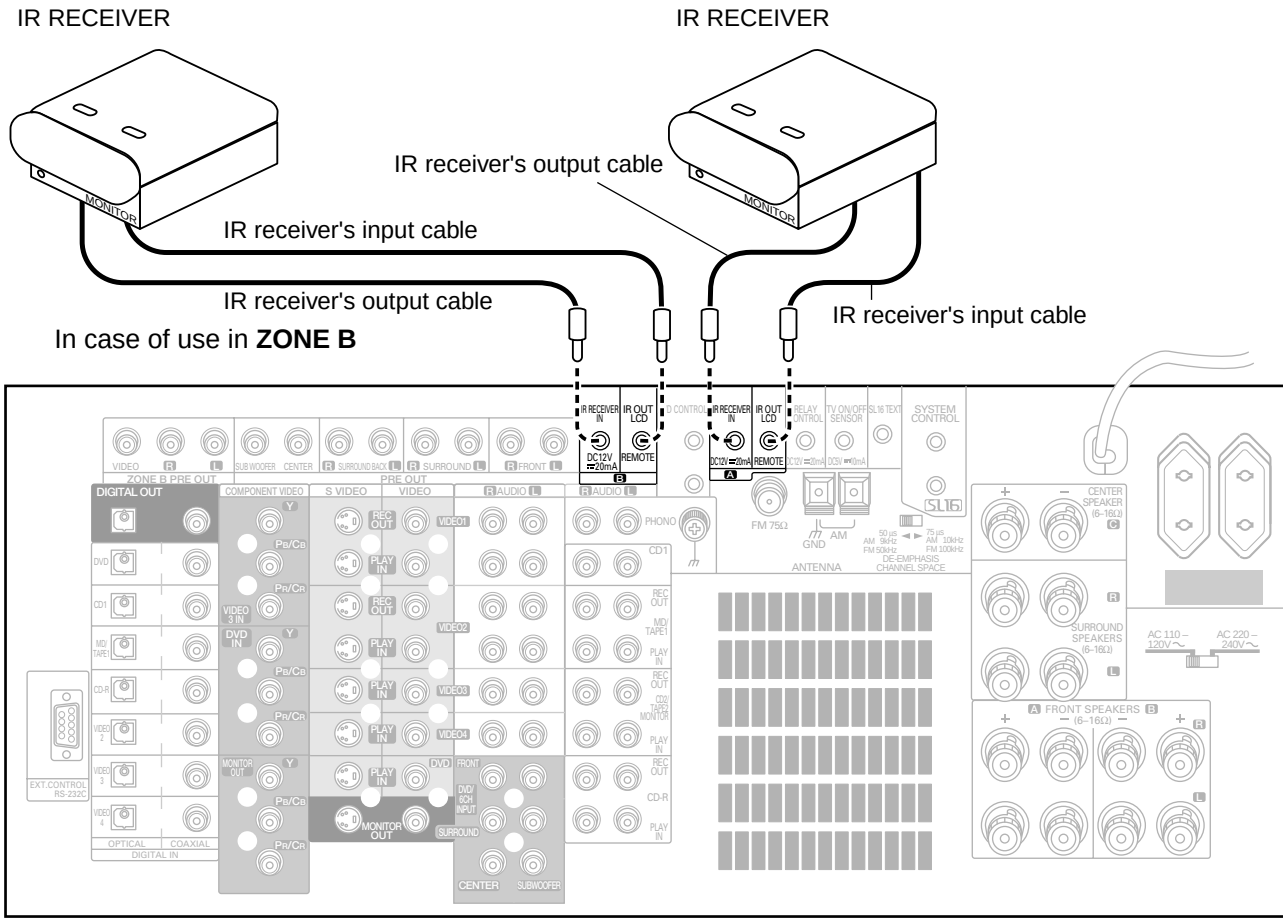
5. Touch [Zone A] for select Zone A or touch [Zone B] for select Zone B. The selected zone will be highlighted.

   Your PowerTouch is now set up to operate devices in multiple zones. Which zone it controls depends on which zone you select. For more information on selecting zones, see "How Do I Switch Control Modes?" on page 91 of the *Users' Guide*.

If you plan on using the KRF-X9995D in a Dual-Zone application, you must use the composite video connections in addition to any S-Video connections. Only video sources connected with composite connectors can be viewed in the second zone (Zone B).

You must use the analog audio cable connections. (Digital inputs are not sent to Zone B.)

Connecting the External Infrared Receivers (for U.K. only)



Your new audio-video receiver supports two-way external infrared (IR) remote transceiver control. The two-way external infrared (IR) remote transceiver enables you to use the Receiver's PowerTouch to operate the receiver if it is:

- in a stereo closet/cabinet
- behind glass doors
- in another zone
- in any situation where the device to be controlled is not visible

For more information about using external IR receivers in another zone, see "Chapter Four: Setting Up Multiple Zones" on page 48.

To Connect IR Receivers (IR Transceivers):

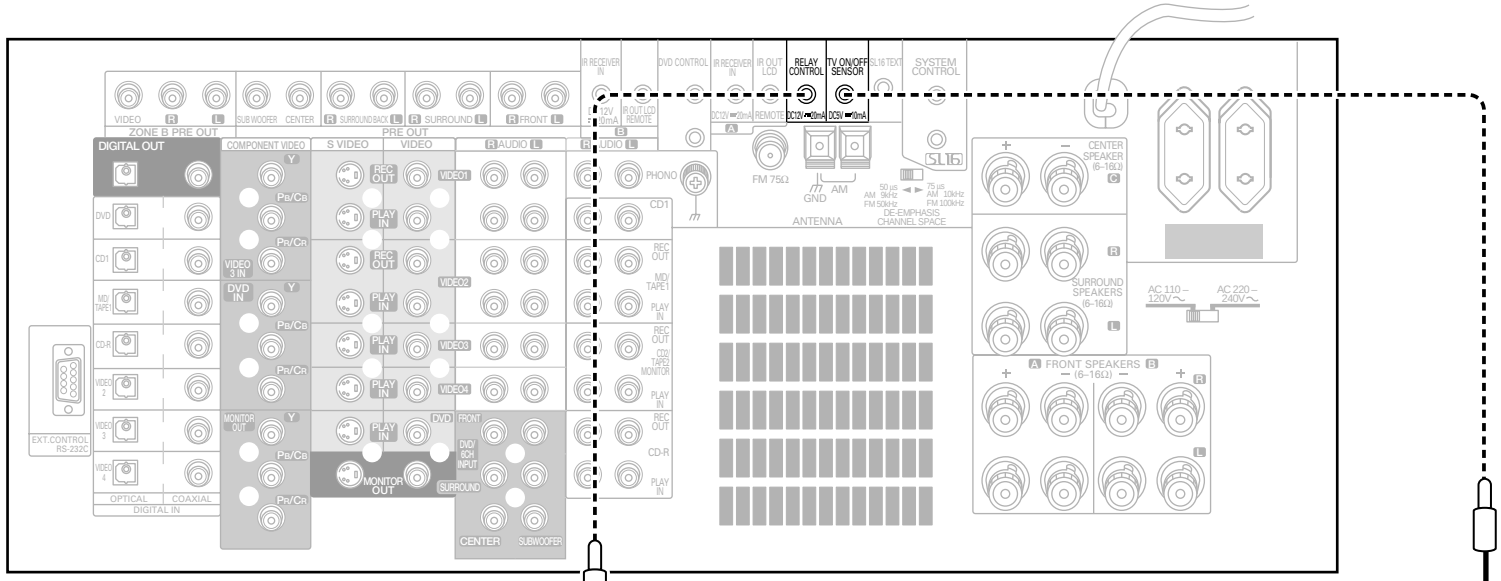
1. Connect the IR receiver's output cable to the Receiver's IR RECEIVER IN jack. This jack supports a 12V 20mA signal.
2. Connect the IR receiver's input cable to the Receiver's IR RECEIVER OUT jack.
3. (For some IR receiver)

   Connect an AC adaptor to the IR receiver. Do not plug the adaptor into the wall until all connections are made.

NOTES

Make sure that the input/output terminals and electrical specifications of the IR receiver match those of this unit. (see Chapter Five: Specifications)

Connecting and Setting Up On/Off Sensors or Relay Controls (for U.K. only)



RELAY CONTROL

CONTROLLED DEVICE (e.g. Powered Screen)

TV ON/OFF SENSOR

	status	
	Power Off	Power On
To Tip	0V	Switched between 0 V and 12 V by a button on one of PowerTouch's screens (see page 82 of *Users' Guide*).
To Ring	0V	+12V When the receiver's power is switched on.
To Sleeve	Ground	Ground

Connecting and Setting Up On/Off Sensors or Relay Controls (for U.K. only), continued

The KRF-X9995D (model for U.K.) supports 2 types of additional external controls:

- A relay control that enables you to operate external relay-control devices (such as the Xantech 590-0 programmable controller, via Xantech's 599-00 pulse switching module).
- A TV ON/OFF sensor that enables you to use the Perfect Macro feature (described further in the U*sers' Guide*) to accurately sense whether the TV is already on or off and adjust accordingly.

To Connect Relay Controls:

1. Consult the relay control's manual for compatibility information and installation instructions before connecting it to your new receiver. If you install the control incorrectly or connect an incompatible control to the receiver, you may damage the control and your new receiver.
2. Connect the control cable to the receiver's **RELAY CONTROL** jack. This jack supports a 12V, 20mA signal.

Do not connect multiple 599-00 switching modules to each other or to the receiver, as this can exceed the maximum current capacity of the jack and damage your receiver.

To Connect TV ON/OFF Sensors:

1. Connect the sensor to the TV as described in the sensor's manual.
2. Connect the sensor cable to the receiver's **TV ON/ OFF SENSOR** jack. This jack supports a 5V, 10mA signal.

JDS:PSS-TV or NILES:LS-1, APC-2 sensors are compatible with your new receiver.

Chapter Five: Specifications

Read this page carefully to ensure safe operation.

NOTE: Do not use contact cleaning agents because they could cause a malfunction. Be especially careful not to use contact cleaning agents containing oil, since they may deform the plastic components.

KRF-X9995D (for U.K.)

Audio Section

Rated Output Power during stereo operation
1 kHz, 0.03% T.H.D. , 6Ω (DIN/IEC) ..... 140W + 140 W
20 Hz ~ 20 kHz, 0.03% T.H.D. , 6Ω (IEC)
..... 130W + 130 W

Effective Output Power during surround operation
1 kHz, 0.06% T.H.D. at 6 Ω, all channel driven
(Front, Center, Surround) ..... 130 W × 5

Total Harmonic Distortion ..... 0.005 % (1 kHz, 65 W, 6 Ω)

Frequency Response (IHF'66)
Line (CD1, MD/TAPE, CD2/TAPE2 MONITOR, CD-R, VIDEO 1 - 4, DVD/6CH.) ..... 7 Hz ~ 100 kHz, 0 dB, -3 dB

Signal to Noise Ratio (IHF '66)
PHONO (MM) ..... 76 dB
CD1 ..... 98 dB

Input Sensitivity / Impedance
PHONO (MM) ..... 4.0 mV / 47 kΩ
CD1 ..... 300 mV / 47 kΩ
DVD/6CH. ..... 300 mV / 47 kΩ

Output Level / Impedance
TAPE REC ..... 300 mV / 2.2 k Ω
PRE OUT **(Front, Center, Surround, Surround back)**
..... 1 V / 470 Ω
PRE OUT **(Subwoofer)** ..... 1.8 V / 470 Ω

Tone Control
Bass ..... ± 7 dB (at 100 Hz)
Treble ..... ± 7 dB (at 10 kHz)

Loudness Control Volume at -30 dB level
..... +6 dB (100 Hz), +3 dB (10 kHz)

Digital Audio Section

Sampling Frequency..... 32 kHz, 44.1 kHz, 48 kHz, 96 kHz
Input Level / Impedance / Wavelength
Optical ..... -15 dBm ~ -21 dBm, 660 nm ±30 nm
Coaxial ..... 0.5 Vp-p / 75 Ω

Output Level / Impedance / Wavelength
Optical ..... -15 dBm ~ -21 dBm, 660 nm ±30 nm
Coaxial ..... 0.5 Vp-p / 75 Ω

Video Section

Video Inputs / Outputs
Video (composite) ..... 1 Vp-p / 75 Ω
S Video (luminance signal) ..... 1 Vp-p / 75 Ω
(chrominance signal) ..... 0.286 Vp-p / 75 Ω
Component (luminance signal) ..... 1 Vp-p / 75 Ω
(P_B/P_R-signal) ..... ±0.350 Vp-p / 75 Ω

FM Tuner Section

Tuning Frequency Range..... 87.5 MHz ~ 108 MHz

Usable Sensitivity (DIN at 75 Ω)
Mono ..... 1.3 µV/ 13.2 dBf (40 kHz dev., S/N 26 dB)
Stereo ..... 35.1 µV/ 42.1 dBf (46 kHz dev., S/N 46 dB)

Total Harmonic Distortion (DIN at 1 kHz)
Mono ..... 0.2 % (71.2 dBf input)
Stereo ..... 0.8 % (71.2 dBf input)

Signal to Noise Ratio (DIN weighted, 1kHz)
Mono ..... 65 dB (40 kHz dev., 71.2 dBf input)
Stereo ..... 60 dB (40 kHz dev., 71.2 dBf input)

Stereo Separation (DIN at 1 kHz) ..... 36 dB

Selectivity (DIN ±300 kHz) ..... 64 dB

Frequency Response ..... 30 Hz ~ 15 kHz, +0.5 dB, -3.0 dB

AM Tuner Section

Tuning Frequency Range ..... 531 kHz ~ 1,602 kHz

Usable Sensitivity (30 % mod., S/N 20 dB)
..... 16 µV / (500 µV/m)

Signal to Noise Ratio (30 % mod., 1 mV input) ..... 50 dB

Relay and IR In/Out Section

Relay Control Terminal
Maximum Output Current ..... 20 mA
Operating Voltage ..... 12 V
Output Impedance ..... 470 Ω

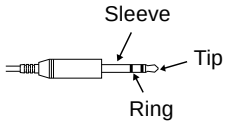
IR Receiver In Terminal
Maximum Output Current ..... 20 mA
Operating Voltage ..... 12 V
Output Impedance ..... 470 Ω

IR Out LCD Remote Terminal
Maximum Output Current ..... 20 mA
Operating Voltage ..... 5 V
Output Impedance ..... 470 Ω

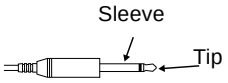
SHAPE OF PLUG TO BE CONNECTED:

IR Receiver In and IR Out LCD Remote	DVD Control

Stereo mini plug



Mono mini plug



IR IN/OUT SPECIFICATION:

	Terminal	
	IR Receiver In	IR Out LCD Remote
To Tip	Signal	Signal
To Ring	Ground	———
To Sleeve	+12V	Ground

RELAY CONTROL SPECIFICATION:

	status		
	Power Off	Power On	When a specific button on one of PowerTouch's screen is pressed.
To Tip	0V	0V	+12V
To Ring	0V	+12V	———
To Sleeve	Ground	Ground	Ground

General

Power consumption ..... 600 W

AC outlet
Switched ..... 2 (total 90 W max.)

Dimensions ..... W : 440mm
H : 191mm
D : 416mm

Weight (Net) ..... 20.2 kg

KRF-X9995D (for Other Countries)

Audio Section

Rated Output Power during stereo operation
20 Hz ~ 20 kHz, 0.7% T.H.D. , 6Ω (IEC)
..... 150W + 150 W
130 watts per channel minimum RMS, both channels driven, at 6 Ω from 20Hz to 20kHz with no more than 0.05% total harmonic distortion (FTC).

Effective Output Power during stereo operation
1 kHz, 10% T.H.D. at 6 Ω ..... 180 W + 180 W

Effective Output Power during surround operation
Front
1 kHz, 10% T.H.D. at 6 Ω, one channel driven
..... 200 W + 200 W
Center
1 kHz, 10% T.H.D. at 6 Ω, one channel driven
..... 200 W + 200 W
Surround
1 kHz, 10% T.H.D. at 6 Ω, one channel driven
..... 200 W + 200 W

Total Harmonic Distortion ..... 0.005 % (1 kHz, 75 W, 6 Ω)

Frequency Response (IHF'66)
Line (CD1, MD/TAPE, CD2/TAPE2 MONITOR, CD-R, VIDEO 1 - 4, DVD/6CH.) ..... 7 Hz ~ 100 kHz, 0 dB, -3 dB

Signal to Noise Ratio (IHF '66)
PHONO (MM) ..... 76 dB
CD1 ..... 98 dB

Input Sensitivity / Impedance
PHONO (MM) ..... 4.0 mV / 47 kΩ
CD1 ..... 300 mV / 47 kΩ
DVD/6CH. ..... 300 mV / 47 kΩ

Output Level / Impedance
TAPE REC ..... 300 mV / 2.2 kΩ
PRE OUT (Front, Center, Surround, Surround back)
..... 1 V / 470 Ω
PRE OUT (Subwoofer) ..... 1.8 V / 470 Ω

Tone Control
Bass ..... ± 7 dB (at 100 Hz)
Treble ..... ± 7 dB (at 10 kHz)

Loudness Control
Volume at -30 dB level ..... +6 dB (100 Hz), +3 dB (10 kHz)

Digital Audio Section

Sampling Frequency ..... 32 kHz, 44.1 kHz, 48 kHz, 96 kHz
Input Level / Impedance / Wavelength
Optical ..... -15 dBm ~ -21 dBm, 660 nm ±30 nm
Coaxial ..... 0.5 Vp-p / 75 Ω

Output Level / Impedance / Wavelength
Optical ..... -15 dBm ~ -21 dBm, 660 nm ±30 nm
Coaxial ..... 0.5 Vp-p / 75 Ω

Video Section

Video Inputs / Outputs
Video (composite) ..... 1 Vp-p / 75 Ω
S Video (luminance signal) ..... 1 Vp-p / 75 Ω
(chrominance signal) ..... 0.286 Vp-p / 75 Ω
Component (luminance signal) ..... 1 Vp-p / 75 Ω
(Cb/Cr-signal) ..... ±0.350 Vp-p / 75 Ω

FM Tuner Section

Tuning Frequency Range ..... 87.5 MHz ~ 108 MHz

Usable Sensitivity (Mono)
..... 1.3 µV (75 Ω) / 13.2 dBf (75 kHz dev., sinad 30 dB)

50dB Quieting Sensitivity
Stereo ..... 25.1 µV (75 Ω) / 39.2 dBf

Total Harmonic Distortion (1 kHz)
Mono ..... 0.3 % (71.2 dBf input)
Stereo ..... 0.5 % (71.2 dBf input)

Signal to Noise Ratio (1 kHz, 75 kHz DEV.)
Mono ..... 75 dB (71.2 dBf input)
Stereo ..... 70 dB (71.2 dBf input)

Stereo Separation (1 kHz) ..... 40 dB

Selectivity (±400 kHz) ..... 50 dB

Frequency Response ..... 30 Hz ~ 15 kHz, +0.5 dB, -3.0 dB

AM Tuner Section

Tuning Frequency Range
9kHz step (except for Australia) ..... 531 kHz ~ 1,602 kHz
10kHz step ..... 530 kHz ~ 1,610 kHz

Usable Sensitivity (30 % mod., S/N 20 dB)
..... 16 µV / (500 µV/m)

Signal to Noise Ratio (30 % mod. 1 mV input) ..... 50 dB

General

Power consumption ..... 600 W

AC outlet
Switched (except for Australia) ..... 2 (total 90 W max.)
Switched (for Australia) ..... 1 (total 90 W max.)

Dimensions ..... W : 480mm
H : 191mm
D : 416mm

Weight (Net) ..... 22.2 kg

Kenwood follows a policy of continuous advancements in development. For this reason, specifications may be changed without notice.

Full performance may not be exhibited in extremely cold locations (below 0 deg. C).

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For your records

Record the serial number, found on the back of the unit, in the spaces designated on the warranty card, and the space provided below. Refer to the model and serial numbers whenever you call upon your dealer for information or service on this product.

Model _____ Serial Number _____